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Energy Information Administration
Office of Energy Markets and End Use
U.S. Department of Energy
Washington, D.C. 20585

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The *International Energy Annual* presents current data and trends for production, consumption, stocks, imports, and exports for primary energy commodities in more than 190 countries, dependencies and areas of special sovereignty. Also included are prices on crude petroleum and petroleum products in selected countries. This report is published to keep the public and other interest parties fully informed with respect to primary energy supplies on a global basis. The data presented have been largely derived from national sources and have been converted to units of measurement and thermal values familiar to the American public.

Publication of this report is in keeping with responsibilities given the Energy Information Administration in Public Law 95-91/Section 205(a) that states:

> "The Administrator shall be responsible for carrying out a central, comprehensive, and unified energy data and information program which will collect, evaluate, assemble, analyze, and disseminate data and information. . ."

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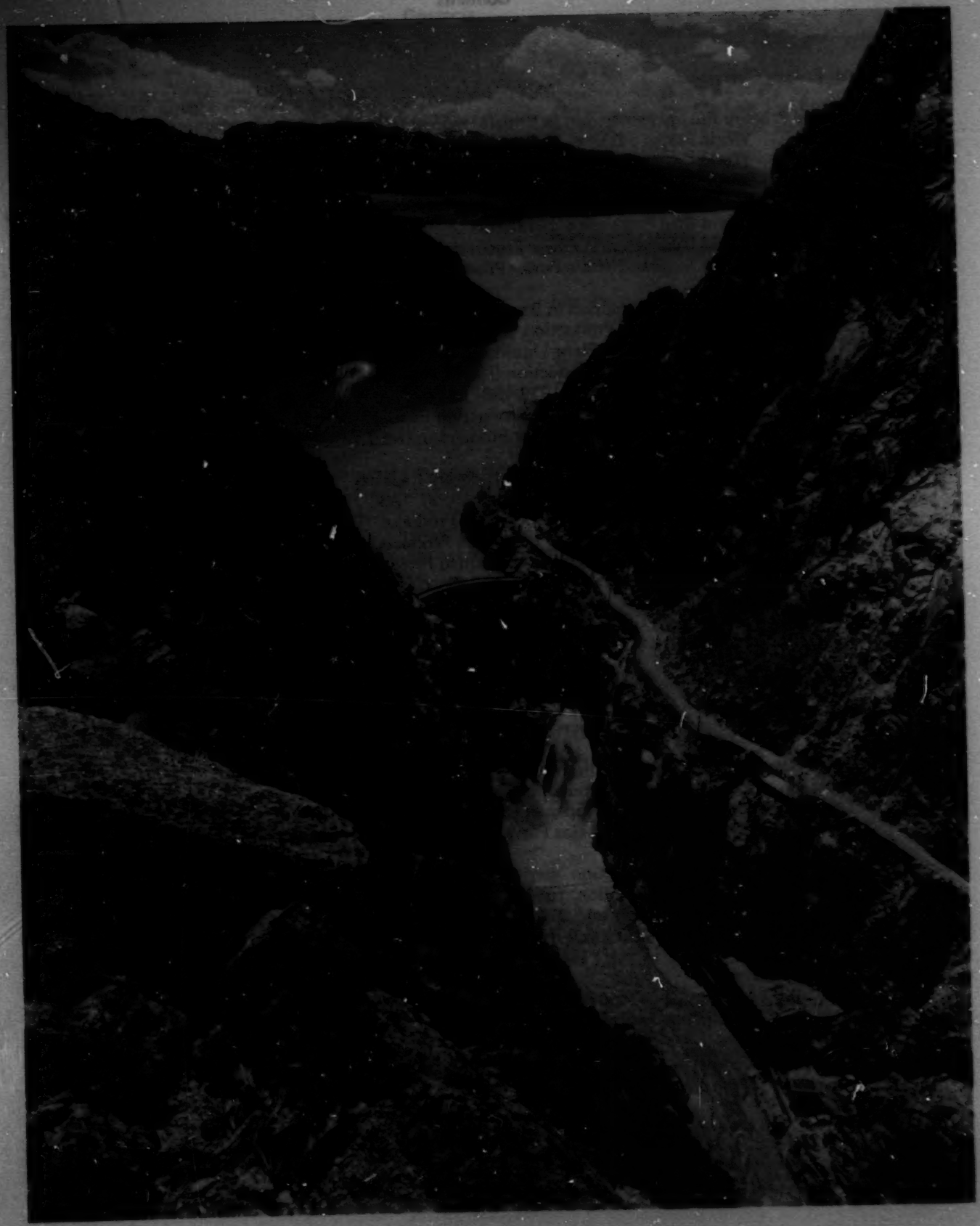

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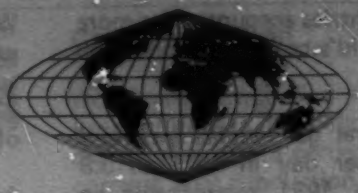


Total Primary Energy Production

The principal sources of the world's primary energy are liquid fuels (crude oil and natural gas liquids), natural gas, coal, and electricity from hydropower and nuclear power. Measured in British thermal units (Btu), world production of primary energy rose from 247 quadrillion (10^{15}) Btu in 1973 to 285 quadrillion Btu in 1981, an increase of 15 percent over the 1973-1981 period. However, between 1973 and 1981 total annual energy production has declined three times. In 1975, cutbacks in crude oil production in some member nations of the Organization of Petroleum Exporting Countries (OPEC) and declining crude oil production in the United States contributed to a 1.2 percent reduction in total world primary energy produced. In 1980, primary energy declined once again but by only 0.1 percent. Increased production of natural gas, natural gas liquids and coal offset the reduced oil production in some countries (particularly Iran, Iraq, and Kuwait). In 1981 the continued decline of crude oil production in the Middle East and Africa contributed to a 2 percent drop in total energy production.

During 1981, the world's largest energy producers were in order, the United States, the U.S.S.R., Saudi Arabia and China. As a group, these four countries accounted for 57 percent of the world's production. While most of the major energy producers experienced declines in production in 1981 as compared to 1980 the U.S.S.R. reported a 2 percent gain resulting from increased production of natural gas. Other countries with smaller levels of energy production but notable increases during the 1973-1981 period were the United Kingdom, Mexico, Australia, South Africa, and Norway. Countries experiencing sizable declines in energy production over the 1973-1981 period included Iran, Kuwait and Venezuela.

Measured by type of primary energy production, crude oil and natural gas liquids accounted for 43 percent of the world's primary energy production in 1981, coal for 28 percent, natural gas for 19 percent, hydroelectric power for 7 percent and nuclear for 3 percent.

Crude Oil and Natural Gas Liquids Production

World production of crude oil and natural gas liquids totaled 59.7 million barrels per day in 1981, well below the 1979 peak production levels of 66 million barrels per day and only 1.2 million barrels per day above 1973 production levels. In 1981 crude oil and natural gas liquids accounted for 43.3 percent of the world's primary energy production as compared to 49.5 percent in 1973.

Crude oil and natural gas liquids production as viewed on a regional basis reveal a range of growth patterns. Production in Western Europe rose from 0.5 million barrels per day in 1973 to 2.8 million barrels per day in 1981 for an annual growth rate of 24.5 percent. Production in the Far East and Oceania totaled 3.3 million barrels per day in 1973 and 5.0 million barrels per day in 1981 for an average growth rate of 5.1 percent. Production in Eastern Europe and the U.S.S.R. rose from 9 million barrels per day to 12.6 million barrels per day between 1973 and 1981 for an annual growth rate of 4.3 percent. Production in North America rose to 14.3 million barrels per day in 1981 as compared to 13.6 in 1973 for an annual growth rate of 0.7 percent.

The Middle East, Africa as well as South America reported production declines between 1973 and 1981 reflecting the reduced oil production from OPEC members. Combined production from these regions totaled 32.0 million barrels per day in 1973 declining to 24.9 million barrels per day in 1981. In 1973 the Middle East alone produced 21.3 million barrels per day of petroleum and natural gas liquids. By 1981 production in this region had declined to 16.4 million barrels per day.

Only Saudi Arabia reported significant production increases in the Middle East during this period with crude oil and natural gas liquids output rising from 7.7 million barrels per day in 1973 to 10.2 million barrels per day in 1981 representing an annual growth rate of 3.7 percent.

During 1981, the world's largest crude oil producers were the U.S.S.R., Saudi Arabia, and the United

States. Combined these countries accounted for more than 54 percent of the world's crude oil production in 1981.

World production of natural gas liquids increased from 2.8 million barrels per day in 1973 to 3.9 million barrels per day in 1981 representing an average annual growth rate of 4.2 percent. The United States is the leading producer averaging 1.6 million barrels per day in 1981 followed by Saudi Arabia, which produced 0.4 million barrels per day in 1981. The 1981 Saudi Arabian production represents a 21.7 percent annual growth rate over the 1973-1981 period.

Petroleum Prices

Official selling prices for most crudes dropped significantly in 1982, reversing the pattern set in 1973. As of January 1, 1982, Canadian heavy crude at 22° API was 16 percent below the price levels of January 1, 1981 and Ecuador's 30° API gravity Oriente crude was down nearly 15 percent. The selling price for many other crudes were reduced by about 10 percent.

Saudi Arabian Light at 34° API gravity increased from $32.00 per barrel in 1981 to $34.00 per barrel in 1982.

On January 1, 1982 representative per gallon premium motor gasoline prices were $2.88 in Spain, $2.50 in London, $2.30 in South Africa, $2.91 in Japan, and $1.35 in the United States.

Petroleum Consumption, Trade, and Stocks

World consumption of petroleum in 1980 was estimated to be 63 million barrels per day. North America accounted for 32 percent of the total, followed by Western Europe at 22 percent. The Middle East and Africa accounted for only 5 percent of the world's oil consumption but produced 39 percent of the world's crude oil and natural gas liquids during 1980.

Total output of refined products in 1980 was estimated to be 63 million barrels per day. In North America production of motor gasoline accounted for 41.8 percent of the total refinery output for the region, slightly below 1979 levels when motor gasoline accounted for 42.9 percent. Motor gasoline output did not exceed 19 percent of refinery yield in any other region of the world.

World imports of crude oil and refined products in 1980 were highest in Western Europe, which received 37.7 percent of all crude oil imports and 43.9 percent of all refined product imports.

World exports of crude oil in 1980 continued to be predominantly from the Middle East and Africa. In spite of reduced output levels, these regions exported 22 million barrels per day of crude oil or 72 percent of total world crude oil exports.

At the close of 1981, petroleum stocks for the Organization for Economic Cooperation and Development (OECD) countries fell slightly below the stock levels at the close of 1980. Between the fourth quarter of 1978 and the fourth quarter of 1981, OECD stocks increased by 14.5 percent. Countries showing the largest increases in petroleum stocks were West Germany (24 percent), and the United States (16 percent).

Natural Gas Production

World dry natural gas production rose from 43.4 trillion cubic feet in 1973 to 54.9 trillion cubic feet in 1981 for a growth rate of 3.0 percent per year. In terms of heat content natural gas production rose from 43.5 quadrillion Btu in 1973 to 54.7 quadrillion Btu in 1981 for a growth rate of 2.9 percent. Dry natural gas accounted for 19 percent of total world primary energy production in Btu in 1981 as compared to 18 percent in 1973.

On a regional basis, there were major increases of dry natural gas production in Eastern Europe and the U.S.S.R., in Far East and Oceania and in Africa. Production from the East Europe and the U.S.S.R. region rose from 9.96 trillion cubic feet in 1973 to

18.63 trillion cubic feet in 1981 for an annual growth rate of 8.1 percent. Production in Africa increased at an annual rate of 19.9 percent and in the Far East and Oceania at an annual rate of 14.1 percent during the 1973-1981 period.

World production of dry natural gas from 1973 through 1981 was led by the United States. Production in the U.S. of dry natural gas in terms of Btu content was 20 quadrillion Btu in 1981 or 37 percent of total dry natural gas production. The U.S.S.R., also a major producer, reported 15 quadrillion Btu in 1981 or 28 percent of world production in 1981. Other significant producers in order were Canada, the Netherlands, Romania and the United Kingdom. These four countries provided 15 percent of the world total.

Natural Gas Consumption and Trade

World consumption of natural gas in 1980 was estimated to be 54 trillion cubic feet. The United States accounted for 37 percent of total world consumption followed by the U.S.S.R. at 25 percent.

World imports of natural gas in 1980 were highest in Western Europe – 59 percent of all natural gas imports. West Germany, the largest single national importer, accounted for a third of all natural gas imports to that region.

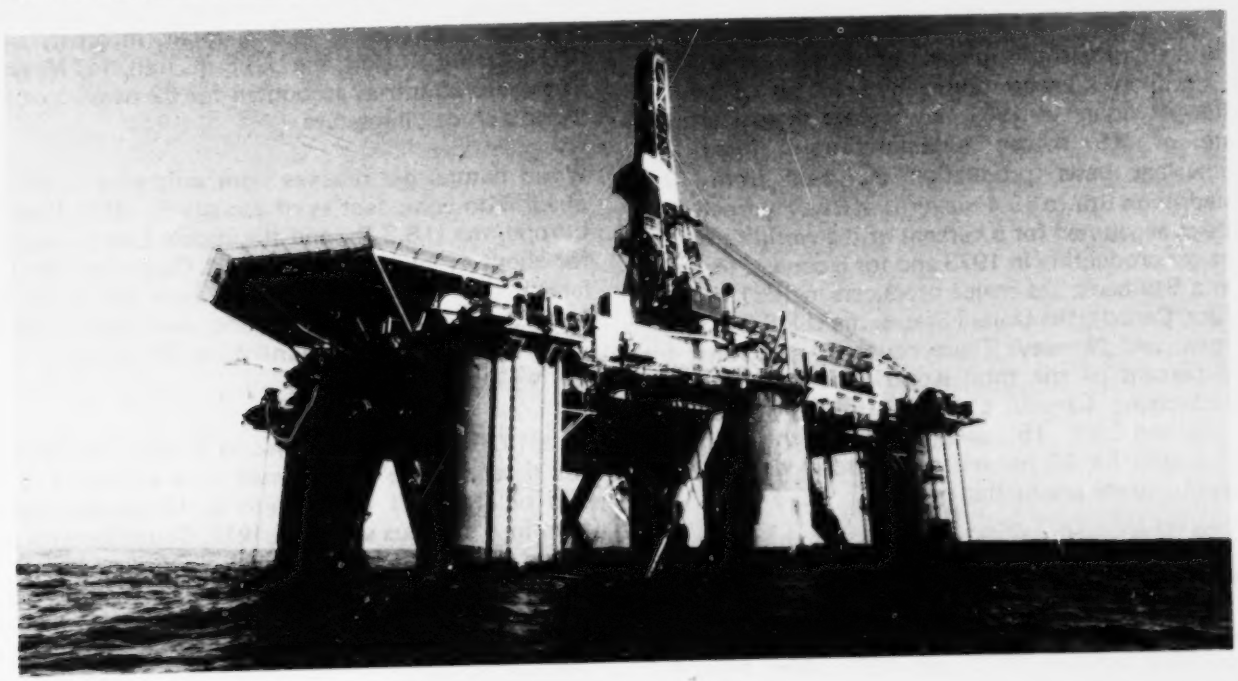
World exports of natural gas in 1980 came predominantly from the U.S.S.R., the Netherlands, and Norway. Combined these countries exported over 68 percent of the world's total gas exports.

Coal Production

World coal production rose from 3.4 billion short tons in 1973 to 4.2 billion short tons in 1981, for a growth rate of 2.5 percent per year. In terms of heat content coal production rose from 65.4 quadrillion Btu in 1973 to 79.7 quadrillion Btu in 1981, a growth rate of 2.5 percent. Coal accounted for 27 percent of the world's primary energy production in Btu in 1973 and for 28 percent in 1981.

During the 1973-1981 period, growth in coal production, both in terms of heat content and volume, increased in all regions. Most dramatic increases were manifested in countries where formerly marginal coal deposits emerged as viable alternatives to costly liquid fuels. Production in the African region increased by 109 percent between 1973 and 1981 principally as a result of mine development and expansion activities in South Africa. The Far East and Oceania region achieved a 36 percent increase in output between 1973 and 1981 with China, Australia, and India accounting for most of the production increases. Production in the Western Hemisphere increased by 41 percent between 1973 and 1981 in spite of the slight drop in production reported by the United States in 1978 and in 1981. Production in Eastern Europe and the U.S.S.R. increased by 6 percent between 1973 and 1981; however, production in 1981 declined from 1980 levels by 3 percent or 49 million tons.

Combined the United States, China, and the U.S.S.R. accounted for 59 percent of total world coal output by heat value in 1981. In spite of a decline in produc-



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tion by nearly a quadrillion Btu from 1980 production levels, Poland maintained its position as the world's fourth largest producer by accounting for 6 percent of the total while West Germany accounted for 5 percent of the total world coal output by heat content.

Coal Consumption and Trade

World consumption of coal in 1980 was approximately 78.5 quadrillion Btu. The United States accounted for 19.7 percent of the total followed by China at 18.7 percent and the U.S.S.R. at 16.2 percent. Other major consumers included Poland, West Germany and the United Kingdom.

Western Europe imported 44.4 percent of total world coal imports in 1980 with France accounting for one quarter of all western European imports. Principal suppliers to Western Europe were the United States, Poland, South Africa and West Germany.

Japan, the largest single national importer, purchased 2.1 quadrillion Btu - 25 percent of the world total and more than twice the amount purchased by France, Europe's leading importer. Australia remained Japan's principal supplier accounting for 43 percent of Japanese coal imports, followed by the United States supplying 30 percent and Canada supplying 16 percent. The highest ranking coal exporters were the United States (29 percent of world coal exports) followed by Australia at more than 15 percent and Poland at 12 percent.

Hydroelectric Power Production

World hydroelectric power production rose from 1.3 trillion kilowatt hours in 1973 to 1.8 trillion kilowatt hours in 1981, an average annual growth rate of 3.9 percent. Measured on a fossil fuel equivalent basis, production increased from 13.5 quadrillion Btu to 18.4 quadrillion Btu. Hydroelectric power accounted for 5 percent of the world's primary energy production in 1973 and for 6 percent in 1981. On a Btu basis, the major producers in 1981 were, in order, Canada, the United States, the U.S.S.R., Brazil, Japan, and Norway. These countries accounted for 58 percent of the total world hydroelectric power production, Canada and the United States each accounted for 15 percent while the U.S.S.R. accounted for 10 percent of the total world hydroelectric power production.

Nuclear Electric Power Production

World nuclear electric power production rose substantially between 1973 and 1981, rising from 0.2 trillion kilowatt hours in 1973 to 0.8 trillion kilowatt hours in 1981, an annual growth rate of 19.5 percent.

Measured on a fossil fuel equivalent basis, production increased from 2.2 quadrillion Btu to 8.7 quadrillion Btu. Nuclear electric power accounted for nearly 1 percent of the world's primary energy production in 1973 and for more than 3 percent in 1981. At the end of 1981, a total of 23 countries produced electricity commercially from nuclear power, compared to 16 countries at the end of 1973. These countries had approximately 255 reactor units in December 1981 including 74 in the United States.

On a Btu basis for the regions, 39 percent of the total world nuclear electric power was produced in North, Central, and South America during 1981 compared with 51 percent in 1973. Every region reflects substantial average annual growth rates over the 1973-1981 period: North, Central, and South America, 15.1 percent; Western Europe, 17.9 percent; Eastern Europe and the U.S.S.R., 31.9 percent; and the Far East and Oceania, 29.4 percent.

The major producers in 1981 were the United States and France accounting for 46 percent of total nuclear electric power production. Other significant producers were the U.S.S.R. accounting for 11 percent of the world's output and Japan accounting for 10 percent of the total.

Reserves

World crude oil reserves were estimated to be 670 billion barrels as of January 1, 1982. More than half (54 percent) were found in the Middle East. The countries with largest reserve totals, in order, were Saudi Arabia, Kuwait, the U.S.S.R., Iran, and Mexico. These five countries accounted for 62 percent of the world's crude oil reserves.

World natural gas reserves were estimated to be 2.9 quadrillion cubic feet as of January 1, 1982. Eastern Europe, the U.S.S.R., and the Middle East accounted for about 66 percent of this total. Countries with the largest reserve totals, in order, were the U.S.S.R., Iran, the United States, Algeria, and Saudi Arabia. These five countries accounted for 72 percent of the world's natural gas reserves.

In a 1979 survey by the World Energy Conference, world recoverable coal reserves were estimated to be 975 billion short tons, which is 40 percent higher than in a previous survey in 1977. Countries with the largest estimated coal reserves, in order, were the U.S.S.R., the United States, China, Australia, and West Germany. These five countries accounted for 76 percent of the world's estimated recoverable reserves of coal.

World Primary Energy Production
in British Thermal Units

Table 1. WORLD PRIMARY ENERGY PRODUCTION, 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	9.50	9.38	8.89	8.73	9.16	9.26	9.95	10.13	9.85
MEXICO	1.87	2.15	2.44	2.76	3.16	3.79	4.55	5.85	6.84
UNITED STATES	62.39	61.17	59.99	60.01	60.21	61.16	63.76	65.39	64.99
TOTAL	**73.76**	**72.71**	**71.31**	**71.50**	**72.53**	**74.20**	**78.26**	**81.36**	**81.67**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	1.20	1.24	1.23	1.24	1.31	1.40	1.45	1.55	1.62
BRAZIL	1.03	1.15	1.24	1.32	1.44	1.53	1.76	1.93	2.05
VENEZUELA	8.20	7.35	5.93	5.79	5.70	5.49	5.94	5.66	5.57
OTHER	2.50	2.41	2.27	2.45	2.64	3.05	3.28	3.08	2.92
TOTAL	**12.93**	**12.16**	**10.67**	**10.81**	**11.08**	**11.46**	**12.43**	**12.22**	**12.17**
WESTERN EUROPE									
FRANCE	1.78	1.82	1.88	1.71	2.00	2.02	2.03	2.27	2.80
GERMANY, WEST	4.92	4.95	4.87	4.96	4.96	4.97	5.26	5.23	5.37
ITALY	1.06	1.07	1.08	1.11	1.15	1.13	1.10	1.07	1.11
NETHERLANDS	2.52	2.86	3.16	3.44	2.90	2.49	2.69	2.68	2.48
NORWAY	.83	.88	1.22	1.50	1.49	2.10	2.88	3.07	3.15
SPAIN	.69	.77	.73	.71	.92	.96	1.06	.98	1.12
UNITED KINGDOM	4.66	4.47	4.97	5.49	6.69	7.31	8.41	8.58	9.00
OTHER	3.14	3.21	3.45	3.37	3.80	3.84	4.16	4.13	4.89
TOTAL	**19.58**	**20.01**	**21.36**	**22.29**	**23.90**	**24.81**	**27.57**	**28.00**	**29.54**
EASTERN EUROPE AND U.S.S.R.									
CZECHOSLOVAKIA	1.74	1.78	1.83	1.86	1.91	1.94	1.96	1.97	1.96
GERMANY, EAST	2.19	2.19	2.20	2.26	2.30	2.32	2.36	2.43	2.45
POLAND	4.94	5.09	5.37	5.59	5.81	6.02	6.21	6.03	5.10
ROMANIA	2.14	2.19	2.30	2.39	2.49	2.34	2.47	2.48	2.76
U.S.S.R.	39.28	41.79	43.63	46.18	48.45	50.71	52.44	54.44	55.50
OTHER	1.16	1.15	1.20	1.25	1.30	1.33	1.32	1.39	1.34
TOTAL	**51.44**	**54.18**	**56.52**	**59.54**	**62.25**	**64.66**	**66.76**	**68.74**	**69.10**
MIDDLE EAST									
IRAN	13.39	13.85	12.39	13.60	13.13	12.50	7.64	3.95	3.10
IRAQ	4.35	4.25	4.89	5.25	5.08	5.44	7.37	5.36	2.18
KUWAIT	6.84	5.76	4.77	4.93	4.55	4.95	5.87	4.00	2.87
SAUDI ARABIA	16.63	18.68	15.68	18.95	20.57	18.48	21.25	22.30	22.08
UNITED ARAB EMIRATES	3.27	3.56	3.56	4.20	4.45	4.09	4.11	3.89	3.45
OTHER	2.34	2.49	2.53	2.54	2.40	2.39	2.57	2.43	2.45
TOTAL	**46.82**	**48.58**	**43.82**	**49.45**	**50.17**	**47.86**	**48.81**	**41.94**	**36.13**
AFRICA									
ALGERIA	2.47	2.35	2.34	2.70	2.77	2.87	2.90	3.01	3.20
EGYPT	.41	.39	.58	.82	1.04	1.21	1.30	1.45	1.41
LIBYA	4.72	3.32	3.27	4.26	4.53	4.36	4.66	3.98	2.58
NIGERIA	4.45	4.85	3.81	4.44	4.46	4.06	4.95	4.43	3.07
SOUTH AFRICA	1.48	1.57	1.65	1.84	2.03	2.15	2.53	2.89	3.27
OTHER	1.27	1.41	1.46	1.33	1.59	1.45	1.55	1.87	1.92
TOTAL	**14.81**	**13.89**	**13.12**	**15.39**	**16.43**	**16.10**	**17.89**	**17.62**	**15.45**
FAR EAST AND OCEANIA									
AUSTRALIA	3.25	3.44	3.64	3.99	4.08	4.20	4.68	4.67	4.94
CHINA	14.22	15.39	16.30	17.16	18.03	20.16	20.68	20.41	20.20
INDIA	2.22	2.36	2.68	2.84	2.90	3.09	3.15	3.15	3.72
INDONESIA	2.90	2.99	2.90	3.38	3.85	3.72	3.84	4.12	4.22
JAPAN	1.53	1.70	1.82	1.87	1.66	1.91	2.06	2.35	2.37
KOREA, NORTH	1.15	1.22	1.27	1.30	1.31	1.33	1.41	1.48	1.51
OTHER	1.96	2.08	2.29	2.60	2.75	2.86	3.28	3.52	3.50
TOTAL	**27.25**	**29.18**	**30.90**	**33.15**	**34.59**	**37.28**	**39.09**	**39.69**	**40.45**
WORLD TOTAL	**246.60**	**250.71**	**247.71**	**262.13**	**270.95**	**276.37**	**290.81**	**289.58**	**284.51**

[a]Preliminary.

Note: Sum of components may not equal total due to independent rounding.

Note: Includes crude oil, lease condensate, natural gas plant liquids, dry natural gas, coal, net hydroelectric power, and net nuclear power.

Table 2. WORLD CRUDE OIL PRODUCTION, 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA[b]									
CANADA	3.82	3.57	3.05	2.75	2.80	2.78	3.17	3.05	2.73
MEXICO	1.02	1.25	1.55	1.83	2.15	2.65	3.20	4.26	5.07
UNITED STATES	19.49	18.57	17.73	17.26	17.45	18.43	18.10	18.25	18.15
TOTAL	**24.33**	**23.40**	**22.33**	**21.84**	**22.41**	**23.87**	**24.48**	**25.56**	**25.95**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	.92	.91	.87	.87	.94	.99	1.04	1.08	1.09
BRAZIL	.36	.37	.37	.35	.34	.34	.35	.38	.45
COLOMBIA	.40	.37	.35	.32	.30	.29	.27	.28	.27
ECUADOR	.46	.38	.35	.41	.40	.43	.46	.44	.44
PERU	.16	.17	.15	.16	.22	.32	.42	.42	.41
TRINIDAD AND TOBAGO	.36	.41	.45	.49	.51	.51	.47	.47	.42
VENEZUELA	7.47	6.60	5.21	5.10	5.00	4.80	5.23	4.82	4.66
OTHER	.17	.16	.14	.14	.13	.12	.12	.14	.15
TOTAL	**10.29**	**9.37**	**7.88**	**7.86**	**7.84**	**7.80**	**8.36**	**8.02**	**7.88**
WESTERN EUROPE									
NORWAY	.07	.07	.40	.59	.59	.75	.85	1.12	1.06
UNITED KINGDOM	(*)	(*)	.03	.53	1.65	2.32	3.36	3.49	3.89
OTHER	.90	.90	.86	.85	.80	.82	.83	.83	.82
TOTAL	**.98**	**.98**	**1.29**	**1.97**	**3.05**	**3.90**	**5.05**	**5.44**	**5.77**
EASTERN EUROPE AND U.S.S.R.									
ROMANIA	.62	.63	.64	.64	.64	.60	.54	.50	.50
U.S.S.R.	16.80	17.86	19.10	20.19	21.20	22.20	22.75	23.43	23.64
OTHER	.21	.22	.22	.22	.22	.23	.22	.22	.22
TOTAL	**17.64**	**18.71**	**19.96**	**21.05**	**22.06**	**23.03**	**23.50**	**24.16**	**24.36**
MIDDLE EAST									
IRAN	12.60	12.94	11.50	12.68	12.17	11.27	6.81	3.58	2.97
IRAQ	4.30	4.20	4.82	5.16	5.00	5.37	7.28	5.28	2.09
KUWAIT	6.55	5.49	4.49	4.64	4.25	4.59	5.40	3.59	2.43
QATAR	1.19	1.09	.92	1.04	.93	1.01	1.06	.98	.84
SAUDI ARABIA	16.32	18.24	15.22	18.35	19.88	17.71	20.33	21.18	20.94
SYRIA	.23	.28	.38	.39	.42	.38	.37	.37	.37
UNITED ARAB EMIRATES	3.24	3.51	3.48	4.14	4.22	3.87	3.87	3.62	3.11
OTHER	.78	.98	1.03	.92	.86	.81	.81	.71	.80
TOTAL	**45.22**	**46.72**	**41.85**	**47.32**	**47.73**	**45.00**	**45.92**	**39.31**	**33.56**
AFRICA									
ALGERIA	2.24	2.06	2.02	2.22	2.35	2.37	2.35	2.07	1.64
ANGOLA	.35	.36	.35	.23	.41	.28	.31	.32	.30
EGYPT	.36	.32	.51	.72	.90	1.05	1.13	1.29	1.25
GABON	.33	.44	.49	.48	.48	.45	.44	.38	.32
LIBYA	4.55	3.19	3.10	4.06	4.32	4.12	4.34	3.72	2.37
NIGERIA	4.41	4.81	3.77	4.38	4.41	4.01	4.86	4.35	3.03
OTHER	.17	.18	.20	.15	.20	.21	.21	.54	.66
TOTAL	**12.41**	**11.35**	**10.43**	**12.24**	**13.07**	**12.48**	**13.65**	**12.67**	**9.56**
FAR EAST AND OCEANIA									
AUSTRALIA	.78	.82	.87	.91	.91	.92	.94	.81	.84
BRUNEI	.46	.41	.39	.44	.45	.44	.50	.51	.35
CHINA	2.34	2.82	3.20	3.59	4.02	4.47	4.55	4.55	4.32
INDIA	.31	.33	.35	.37	.42	.47	.51	.38	.61
INDONESIA	2.85	2.93	2.78	3.21	3.59	3.42	3.33	3.31	3.36
MALAYSIA	.19	.17	.20	.34	.38	.45	.59	.59	.55
OTHER	.05	.05	.05	.05	.05	.05	.13	.17	.13
TOTAL	**6.99**	**7.54**	**7.84**	**8.91**	**9.83**	**10.23**	**10.55**	**10.31**	**10.15**
WORLD TOTAL	**117.84**	**118.07**	**111.57**	**121.19**	**125.98**	**126.31**	**131.52**	**125.47**	**117.23**

[a]Preliminary.

[b]Includes petroleum processed from Athabasca tar sands.

*Denotes less than one-half the unit of measure.

Note: Includes lease condensate.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

Table 3. WORLD NATURAL GAS PLANT LIQUIDS PRODUCTION, 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	0.51	0.49	0.49	0.45	0.46	0.42	0.46	0.52	0.52
MEXICO	.12	.13	.13	.15	.17	.19	.24	.31	.38
UNITED STATES	2.57	2.47	2.37	2.33	2.33	2.24	2.29	2.25	2.30
TOTAL	**3.20**	**3.09**	**2.99**	**2.93**	**2.95**	**2.85**	**2.98**	**3.08**	**3.20**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	.02	.02	.02	.02	.02	.02	.02	.02	.02
BOLIVIA	.01	.01	.01	.01	.01	.01	.01	.01	.01
BRAZIL	.01	.01	.01	.01	.01	.01	.01	.01	.01
CHILE	.01	.01	.01	.01	.02	.02	.02	.02	.02
COLOMBIA	.01	.01	.01	.01	.01	.01	.01	.01	.01
VENEZUELA	.02	.02	.02	.02	.01	.01	.01	.01	.01
OTHER	.14	.13	.12	.12	.12	.10	.11	.10	.09
TOTAL	.01	.01	.01	.01	.01	.01	.01	.02	.02
	.21	**.21**	**.19**	**.19**	**.20**	**.17**	**.18**	**.18**	**.17**
WESTERN EUROPE									
FRANCE	.04	.04	.04	.04	.04	.04	.04	.04	.04
NETHERLANDS	.01	.01	.01	.01	.01	.01	.01	.01	.01
NORWAY	(*)	(*)	.01	.03	.03	.06	.06	.06	.08
UNITED KINGDOM	.01	.01	.02	.02	.05	.06	.07	.07	.08
OTHER	(*)	(*)	(*)	(*)	(*)	(*)	(*)	.01	.01
TOTAL	**.07**	**.06**	**.09**	**.11**	**.14**	**.18**	**.19**	**.19**	**.22**
EASTERN EUROPE AND U.S.S.R.									
HUNGARY	.01	.01	.01	.01	.02	.02	.03	.03	.03
ROMANIA	.02	.02	.02	.02	.02	.02	.02	.02	.02
U.S.S.R.	.23	.39	.40	.47	.49	.52	.53	.55	.55
OTHER	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
TOTAL	**.26**	**.42**	**.43**	**.50**	**.53**	**.56**	**.58**	**.60**	**.61**
MIDDLE EAST									
IRAN	.06	.07	.07	.07	.06	.07	.02	.01	.01
IRAQ	(*)	(*)	(*)	(*)	.01	.01	.02	.01	.01
KUWAIT	.10	.08	.08	.09	.09	.12	.15	.15	.15
QATAR	(*)	.01	.02	.02	.01	.01	.02	.02	.04
SAUDI ARABIA	.14	.21	.22	.20	.34	.40	.48	.59	.69
UNITED ARAB EMIRATES	(*)	(*)	(*)	(*)	.02	.05	.05	.06	.10
OTHER	.00	.00	.00	.00	.00	.00	.00	.01	.01
TOTAL	**.30**	**.37**	**.39**	**.46**	**.53**	**.65**	**.73**	**.85**	**1.01**
AFRICA									
ALGERIA	.05	.08	.10	.11	.11	.15	.22	.22	.34
EGYPT	(*)	(*)	(*)	.01	.02	.03	.03	.03	.03
LIBYA	.06	.03	.05	.06	.06	.06	.06	.06	.06
TOTAL	**.10**	**.11**	**.14**	**.18**	**.19**	**.24**	**.31**	**.31**	**.42**
FAR EAST AND OCEANIA									
AUSTRALIA	.08	.08	.08	.08	.09	.10	.10	.10	.10
BRUNEI	.02	.02	.03	.04	.05	.05	.06	.06	.04
INDONESIA	(*)	(*)	(*)	.02	.02	.05	.06	.11	.15
OTHER	(*)	(*)	(*)	.01	.01	.01	.01	.01	.01
TOTAL[b]	**.10**	**.11**	**.12**	**.14**	**.16**	**.20**	**.22**	**.27**	**.30**
WORLD TOTAL	**4.24**	**4.36**	**4.35**	**4.52**	**4.70**	**4.84**	**5.20**	**5.49**	**5.92**

[a]Preliminary.
[b]Does not include China for which data is not available.
*Denotes less than one-half the unit of measure.
Note: Sum of components may not equal total due to independent rounding.
Sources: Refer to Appendix A.

Table 4. WORLD NATURAL GAS PRODUCTION (DRY), 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	2.44	2.42	2.44	2.46	2.59	2.47	2.66	2.64	2.47
MEXICO	.48	.50	.50	.49	.52	.65	.78	.97	1.06
UNITED STATES	22.19	21.21	19.64	19.48	19.57	19.49	20.08	20.11	19.93
TOTAL	**25.11**	**24.13**	**22.59**	**22.43**	**22.67**	**22.61**	**23.51**	**23.73**	**23.46**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	.22	.24	.25	.25	.26	.26	.24	.26	.32
BOLIVIA	.05	.06	.06	.06	.06	.06	.07	.07	.07
CHILE	.24	.21	.14	.18	.21	.31	.31	.11	.14
COLOMBIA	.14	.12	.08	.08	.13	.15	.13	.13	.13
TRINIDAD AND TOBAGO	.07	.06	.06	.09	.16	.16	.17	.19	.20
VENEZUELA	.52	.54	.51	.45	.45	.46	.46	.59	.66
OTHER	.03	.04	.04	.05	.06	.19	.28	.21	.08
TOTAL	**1.27**	**1.27**	**1.14**	**1.16**	**1.32**	**1.59**	**1.67**	**1.57**	**1.60**
WESTERN EUROPE									
FRANCE	.28	.28	.27	.26	.26	.24	.24	.24	.26
GERMANY, WEST	.67	.69	.68	.64	.64	.68	.69	.63	.64
ITALY	.56	.56	.53	.57	.50	.50	.47	.44	.51
NETHERLANDS	2.38	2.73	3.05	3.33	2.79	2.38	2.58	2.57	2.38
NORWAY	.00	(*)	.01	.01	.11	.44	1.03	1.01	1.05
UNITED KINGDOM	1.06	1.29	1.34	1.40	1.47	1.40	1.45	1.37	1.42
OTHER	.14	.15	.16	.15	.20	.16	.19	.15	.14
TOTAL	**5.09**	**5.68**	**5.99**	**6.37**	**5.97**	**5.80**	**6.66**	**6.42**	**6.80**
EASTERN EUROPE AND U.S.S.R.									
GERMANY, EAST	.10	.11	.10	.12	.12	.12	.09	.12	.12
HUNGARY	.19	.20	.20	.24	.26	.29	.26	.23	.24
POLAND	.22	.21	.22	.24	.26	.29	.26	.23	.22
ROMANIA	1.04	1.08	1.17	1.28	1.35	1.20	1.35	1.35	1.62
U.S.S.R.	7.85	8.65	9.52	10.56	11.39	12.25	13.38	14.32	15.30
OTHER	.05	.05	.05	.05	.05	.05	.04	.07	.04
TOTAL	**9.45**	**10.29**	**11.26**	**12.48**	**13.43**	**14.20**	**15.38**	**16.33**	**17.53**
MIDDLE EAST									
BAHRAIN	.06	.07	.08	.08	.09	.09	.11	.10	.13
IRAN	.67	.77	.76	.78	.83	1.10	.75	.31	.06
IRAQ	.04	.04	.06	.08	.06	.06	.07	.06	.07
KUWAIT	.19	.20	.19	.21	.22	.24	.32	.26	.29
SAUDI ARABIA	.17	.23	.23	.31	.35	.38	.43	.54	.46
UNITED ARAB EMIRATES	.04	.04	.08	.06	.20	.18	.20	.21	.24
OTHER	.07	.06	.09	.06	.07	.06	.18	.21	.22
TOTAL	**1.24**	**1.41**	**1.49**	**1.58**	**1.81**	**2.10**	**2.05**	**1.69**	**1.87**
AFRICA									
ALGERIA	.18	.21	.22	.37	.30	.35	.32	.72	1.22
LIBYA	.11	.10	.12	.14	.14	.17	.25	.19	.16
OTHER	.04	.05	.04	.06	.07	.08	.11	.10	.07
TOTAL	**.33**	**.36**	**.39**	**.57**	**.52**	**.60**	**.69**	**1.01**	**1.44**
FAR EAST AND OCEANIA									
AUSTRALIA	.15	.17	.18	.22	.25	.27	.29	.35	.41
BRUNEI	.07	.16	.21	.28	.32	.33	.33	.35	.34
CHINA	.26	.30	.34	.38	.43	.53	.54	.53	.48
INDONESIA	.03	.04	.09	.13	.21	.21	.41	.66	.66
JAPAN	.10	.10	.09	.09	.11	.10	.09	.08	.09
PAKISTAN	.13	.15	.16	.16	.17	.18	.23	.28	.41
OTHER	.22	.23	.26	.30	.33	.31	.28	.31	.36
TOTAL	**.96**	**1.15**	**1.34**	**1.56**	**1.82**	**1.93**	**2.16**	**2.56**	**2.75**
WORLD TOTAL	**43.46**	**44.29**	**44.19**	**46.16**	**47.54**	**48.82**	**52.12**	**53.30**	**54.65**

[a]Preliminary.

*Denotes less than one-half the unit of measure.

Note: Sum of components may not equal total due to independent rounding.

Note: Temperature and pressure at measurement are not reported.

Sources: Refer to Appendix A.

Table 5. WORLD COAL PRODUCTION, 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	0.52	0.58	0.65	0.65	0.72	0.78	0.70	0.85	0.92
MEXICO	.08	.10	.10	.11	.13	.13	.15	.14	.14
UNITED STATES	14.37	14.47	15.19	15.85	15.83	15.04	17.65	19.21	18.98
TOTAL	**14.97**	**15.11**	**15.94**	**16.61**	**16.68**	**15.95**	**18.50**	**20.20**	**20.05**
CENTRAL AND SOUTH AMERICA									
BRAZIL	.04	.07	.06	.08	.08	.08	.17	.19	.20
COLOMBIA	.09	.09	.10	.10	.10	.10	.14	.15	.15
OTHER	.05	.05	.05	.05	.05	.04	.05	.03	.04
TOTAL	**.19**	**.21**	**.21**	**.23**	**.23**	**.23**	**.36**	**.37**	**.39**
WESTERN EUROPE									
BELGIUM	.22	.21	.19	.18	.18	.17	.16	.16	.16
FRANCE	.76	.68	.68	.67	.65	.63	.56	.55	.57
GERMANY, WEST	3.69	3.69	3.59	3.69	3.54	3.52	3.75	3.77	3.81
GREECE	.07	.07	.09	.12	.12	.12	.12	.12	.14
SPAIN	.28	.29	.30	.31	.36	.39	.42	.53	.65
TURKEY	.19	.18	.18	.16	.20	.20	.32	.22	.28
UNITED KINGDOM	3.19	2.70	3.15	3.04	3.00	3.02	2.99	3.14	3.08
YUGOSLAVIA	.38	.40	.42	.44	.46	.47	.49	.55	.61
OTHER	.13	.11	.09	.09	.08	.08	.07	.07	.08
TOTAL	**8.92**	**8.32**	**8.69**	**8.69**	**8.59**	**8.60**	**8.89**	**9.11**	**9.38**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	.38	.38	.39	.36	.35	.35	.39	.42	.41
CZECHOSLOVAKIA	1.67	1.69	1.74	1.78	1.82	1.85	1.86	1.85	1.82
GERMANY, EAST	2.07	2.05	2.06	2.07	2.11	2.12	2.15	2.17	2.18
HUNGARY	.34	.34	.32	.33	.33	.33	.30	.30	.30
POLAND	4.68	4.93	5.10	5.31	5.51	5.69	5.90	5.75	4.83
ROMANIA	.38	.38	.38	.37	.38	.41	.44	.48	.49
U.S.S.R.	13.02	13.33	13.10	13.30	13.49	13.52	13.44	13.45	13.22
OTHER	.01	.01	.01	.01	.01	.01	.02	.02	.02
TOTAL	**22.58**	**22.97**	**23.10**	**23.53**	**24.01**	**24.29**	**24.50**	**24.45**	**23.27**
AFRICA									
SOUTH AFRICA	1.47	1.56	1.64	1.82	2.01	2.13	2.51	2.86	3.24
ZIMBABWE	.09	.08	.07	.08	.08	.08	.09	.09	.08
OTHER	.06	.06	.06	.06	.06	.06	.05	.05	.06
TOTAL	**1.62**	**1.69**	**1.77**	**1.97**	**2.15**	**2.27**	**2.65**	**3.00**	**3.37**
MIDDLE EAST, FAR EAST AND OCEANIA									
AUSTRALIA	2.12	2.23	2.36	2.63	2.69	2.77	3.19	3.24	3.41
CHINA	11.23	11.83	12.30	12.66	13.09	14.71	15.08	14.76	14.79
INDIA	1.57	1.70	1.93	2.04	2.02	2.05	2.09	2.20	2.49
JAPAN	.57	.51	.59	.46	.46	.48	.44	.45	.44
KOREA, NORTH	1.03	1.08	1.10	1.13	1.13	1.13	1.20	1.25	1.26
KOREA, SOUTH	.29	.32	.37	.35	.36	.38	.38	.39	.42
TAIWAN	.09	.08	.09	.09	.08	.08	.08	.07	.07
OTHER	.20	.23	.23	.27	.28	.28	.31	.32	.32
TOTAL	**17.12**	**17.99**	**18.99**	**19.64**	**20.14**	**21.89**	**22.79**	**22.70**	**23.21**
WORLD TOTAL	**65.36**	**66.30**	**68.72**	**70.66**	**71.81**	**73.23**	**77.69**	**79.83**	**79.66**

[a]Preliminary.

Note: Includes anthracite, subantracite, bituminous, subbituminous, lignite, and brown coal.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

Table 6. WORLD HYDROELECTRIC POWER PRODUCTION (NET), 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	2.01	2.19	2.10	2.21	2.29	2.43	2.53	2.61	2.74
MEXICO	.17	.17	.16	.18	.20	.17	.19	.17	.18
UNITED STATES	2.86	3.18	3.15	2.98	2.33	2.94	2.91	2.89	2.73
TOTAL	**5.04**	**5.54**	**5.42**	**5.37**	**4.82**	**5.54**	**5.64**	**5.67**	**5.65**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	.03	.05	.05	.05	.06	.08	.11	.16	.15
BRAZIL	.61	.68	.77	.86	.97	1.07	1.20	1.32	1.35
CHILE	.05	.06	.06	.06	.07	.07	.07	.08	.08
COLOMBIA	.08	.09	.10	.11	.11	.13	.14	.14	.14
PERU	.05	.05	.06	.06	.06	.06	.07	.08	.08
VENEZUELA	.06	.07	.09	.11	.12	.13	.14	.15	.15
OTHER	.08	.08	.08	.09	.09	.11	.11	.13	.14
TOTAL	**.96**	**1.10**	**1.21**	**1.33**	**1.48**	**1.64**	**1.83**	**2.05**	**2.10**
WESTERN EUROPE									
AUSTRIA	.20	.23	.24	.21	.26	.26	.29	.30	.31
FINLAND	.11	.13	.13	.10	.12	.10	.11	.10	.11
FRANCE	.49	.59	.62	.51	.79	.71	.70	.73	.75
GERMANY, WEST	.16	.18	.18	.18	.18	.19	.19	.19	.20
ITALY	.40	.41	.48	.42	.55	.49	.50	.49	.47
NORWAY	.75	.79	.80	.84	.74	.83	.92	.86	.95
PORTUGAL	.08	.08	.07	.05	.10	.11	.12	.08	.05
SPAIN	.30	.32	.27	.23	.42	.43	.49	.32	.31
SWEDEN	.62	.59	.59	.56	.55	.59	.63	.60	.60
SWITZERLAND	.30	.30	.35	.28	.38	.34	.34	.35	.35
UNITED KINGDOM	.05	.05	.05	.05	.05	.05	.06	.05	.06
YUGOSLAVIA	.17	.21	.20	.21	.25	.26	.27	.29	.31
OTHER	.09	.11	.12	.15	.15	.17	.20	.21	.21
TOTAL	**3.72**	**4.00**	**4.06**	**3.76**	**4.55**	**4.54**	**4.80**	**4.57**	**4.70**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	.02	.02	.03	.03	.04	.03	.03	.04	.04
CZECHOSLOVAKIA	.02	.04	.04	.04	.05	.04	.04	.04	.04
ROMANIA	.08	.09	.09	.08	.10	.11	.12	.12	.12
U.S.S.R.	1.26	1.36	1.30	1.40	1.51	1.75	1.77	1.89	1.86
OTHER	.04	.05	.05	.05	.06	.06	.06	.06	.06
TOTAL	**1.43**	**1.56**	**1.50**	**1.60**	**1.75**	**1.99**	**2.02**	**2.16**	**2.18**
MIDDLE EAST									
IRAN	.03	.04	.04	.04	.04	.04	.04	.03	.04
OTHER	.01	.02	.02	.03	.03	.04	.04	.04	.04
TOTAL	**.04**	**.05**	**.06**	**.07**	**.07**	**.08**	**.08**	**.07**	**.08**
AFRICA									
EGYPT	.05	.06	.07	.08	.09	.10	.10	.10	.10
GHANA	.04	.04	.04	.04	.05	.04	.05	.05	.05
MOZAMBIQUE	(*)	(*)	(*)	.02	.05	.08	.11	.14	.14
ZAIRE	.04	.03	.04	.04	.04	.04	.04	.04	.05
ZAMBIA	.05	.06	.06	.07	.09	.08	.09	.09	.09
ZIMBABWE	.06	.05	.06	.05	.04	.04	.04	.04	.04
OTHER	.11	.11	.12	.14	.14	.13	.16	.16	.17
TOTAL	**.35**	**.37**	**.39**	**.44**	**.49**	**.51**	**.58**	**.63**	**.65**
FAR EAST AND OCEANIA									
AUSTRALIA	.12	.14	.16	.16	.14	.15	.17	.18	.19
CHINA	.39	.44	.46	.53	.49	.46	.52	.57	.62
INDIA	.30	.29	.34	.36	.39	.49	.47	.48	.51
JAPAN	.74	.87	.88	.91	.79	.77	.88	.95	.97
KOREA, NORTH	.13	.14	.17	.18	.18	.20	.21	.23	.25
NEW ZEALAND	.15	.15	.17	.15	.15	.17	.16	.17	.18
PAKISTAN	.05	.05	.05	.06	.06	.06	.09	.11	.11
PHILIPPINES	.02	.02	.02	.03	.02	.03	.03	.04	.04
THAILAND	.02	.03	.03	.04	.03	.02	.03	.04	.04
OTHER	.07	.09	.09	.09	.10	.11	.13	.13	.14
TOTAL	**1.99**	**2.21**	**2.39**	**2.50**	**2.35**	**2.45**	**2.67**	**2.89**	**3.04**
WORLD TOTAL	**13.52**	**14.83**	**15.03**	**15.07**	**15.51**	**16.74**	**17.64**	**18.04**	**18.35**

[a]Preliminary.
[b]Estimated.
*Denotes less than one-half unit of measure
Note: Sum of components may not equal total due to independent rounding.
Sources: Refer to Appendix A.

Table 7. WORLD NUCLEAR ELECTRIC POWER PRODUCTION (NET), 1973-1981

(Quadrillion [10^{15}] Btu)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH, CENTRAL AND SOUTH AMERICA									
ARGENTINA	0.00	0.01	0.03	0.03	0.02	0.03	0.03	0.03	0.03
CANADA	.20	.17	.15	.20	.30	.37	.43	.45	.48
UNITED STATES	.91	1.27	1.90	2.11	2.70	3.02	2.71	2.67	2.90
TOTAL	**1.11**	**1.45**	**2.07**	**2.34**	**3.02**	**3.42**	**3.17**	**3.15**	**3.41**
WESTERN EUROPE									
BELGIUM	.00	(*)	.07	.10	.12	.12	.11	.12	.13
FINLAND	.00	.00	.00	.00	.03	.03	.07	.07	.14
FRANCE	.15	.18	.22	.19	.21	.35	.44	.66	1.10
GERMANY, WEST	.12	.12	.22	.25	.36	.36	.42	.44	.54
ITALY	.04	.04	.05	.05	.04	.05	.03	.03	.03
NETHERLANDS	.01	.03	.03	.04	.04	.04	.03	.04	.04
SPAIN	.07	.08	.08	.08	.07	.08	.07	.06	.10
SWEDEN	.02	.02	.12	.16	.19	.23	.21	.26	.36
SWITZERLAND	.06	.07	.08	.08	.08	.08	.12	.14	.15
UNITED KINGDOM	.35	.42	.38	.45	.47	.45	.47	.46	.48
TOTAL	**.82**	**.96**	**1.24**	**1.39**	**1.61**	**1.80**	**1.98**	**2.27**	**3.07**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	.00	.01	.03	.05	.06	.06	.06	.06	.06
CZECHOSLOVAKIA	(*)	.01	(*)	.01	(*)	(*)	.02	.05	.06
GERMANY, EAST	(*)	.02	.03	.06	.05	.07	.10	.13	.14
U.S.S.R.	.12	.19	.21	.26	.36	.47	.58	.79	.92
TOTAL	**.13**	**.23**	**.27**	**.38**	**.48**	**.60**	**.77**	**1.03**	**1.19**
FAR EAST AND OCEANIA									
INDIA	.02	.03	.03	.03	.03	.02	.03	.03	.03
JAPAN	.10	.19	.23	.38	.29	.55	.63	.85	.85
KOREA, SOUTH	.00	.00	.00	.00	.00	.00	.00	.03	.03
PAKISTAN	.01	.01	.01	.01	(*)	(*)	(*)	(*)	(*)
TAIWAN	.00	.00	.00	.00	.00	.03	.06	.08	.11
TOTAL	**.13**	**.22**	**.26**	**.42**	**.32**	**.60**	**.73**	**.99**	**1.02**
WORLD TOTAL	**2.19**	**2.86**	**3.84**	**4.52**	**5.42**	**6.43**	**6.65**	**7.44**	**8.69**

[a]Preliminary.

*Denotes less than one-half the unit of measure.

Note: No production is reported for Africa or the Middle East.

Note: Figures are reported for net generation as opposed to gross. Net figures are generally less than gross by about 5 percent, which represents the energy consumed by the generating plants.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

2

World Primary Energy Production in Barrels, Cubic Feet, Short Tons, and Kilowatt Hours

Table 8. WORLD CRUDE OIL PRODUCTION, 1973-1981

(Thousand Barrels per Day)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	1,800	1,684	1,439	1,295	1,320	1,313	1,496	1,435	1,285
MEXICO	465	571	705	831	981	1,209	1,461	1,936	2,313
UNITED STATES	9,208	8,774	8,375	8,132	8,245	8,707	8,552	8,597	8,572
TOTAL	**11,473**	**11,029**	**10,519**	**10,258**	**10,546**	**11,229**	**11,509**	**11,968**	**12,170**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	420	414	395	398	431	453	473	491	496
BRAZIL	169	176	177	167	161	160	166	182	213
COLOMBIA	184	168	157	146	138	131	124	126	125
ECUADOR	209	177	161	188	183	202	214	204	204
PERU	74	79	70	76	102	151	195	195	193
TRINIDAD AND TOBAGO	165	185	205	224	230	232	215	211	189
VENEZUELA	3,366	2,976	2,346	2,294	2,238	2,165	2,356	2,168	2,102
OTHER	82	76	69	70	63	57	59	67	70
TOTAL	**4,668**	**4,252**	**3,581**	**3,563**	**3,546**	**3,550**	**3,802**	**3,644**	**3,592**
WESTERN EUROPE									
NORWAY	32	35	189	279	280	356	403	528	501
UNITED KINGDOM	2	2	12	245	768	1,082	1,568	1,622	1,811
OTHER	416	416	397	392	371	379	384	380	384
TOTAL	**450**	**453**	**598**	**916**	**1,419**	**1,817**	**2,355**	**2,530**	**2,696**
EASTERN EUROPE AND U.S.S.R.									
ROMANIA	296	300	302	304	303	284	255	238	238
U.S.S.R.	8,465	9,000	9,625	10,143	10,682	11,185	11,460	11,773	11,909
OTHER	93	96	97	96	97	101	97	98	98
TOTAL	**8,854**	**9,396**	**10,024**	**10,542**	**11,082**	**11,570**	**11,813**	**12,109**	**12,245**
MIDDLE EAST									
IRAN	5,861	6,022	5,350	5,883	5,663	5,242	3,168	1,662	1,380
IRAQ	2,018	1,971	2,262	2,415	2,348	2,563	3,477	2,514	1,000
KUWAIT	3,020	2,546	2,094	2,145	1,969	2,131	2,500	1,656	1,125
QATAR	570	518	438	497	445	487	508	472	405
SAUDI ARABIA	7,596	8,480	7,075	8,577	9,245	8,301	9,532	9,900	9,815
SYRIA	105	124	170	175	188	170	166	164	166
UNITED ARAB EMIRATES	1,533	1,679	1,664	1,936	1,999	1,831	1,831	1,709	1,474
OTHER	363	457	480	427	399	378	376	331	375
TOTAL	**21,066**	**21,796**	**19,522**	**22,056**	**22,255**	**21,101**	**21,558**	**18,408**	**15,740**
AFRICA									
ALGERIA	1,097	1,009	983	1,075	1,152	1,161	1,154	1,012	805
ANGOLA	162	169	165	108	194	131	142	150	140
EGYPT	165	150	235	330	415	485	525	595	578
GABON	150	202	223	223	222	209	203	175	147
LIBYA	2,175	1,521	1,480	1,933	2,063	1,983	2,092	1,787	1,140
NIGERIA	2,094	2,255	1,783	2,067	2,085	1,897	2,302	2,055	1,433
OTHER	83	88	96	74	96	101	101	257	314
TOTAL	**5,887**	**5,393**	**4,965**	**5,809**	**6,228**	**5,966**	**6,524**	**6,031**	**4,557**
FAR EAST AND OCEANIA									
AUSTRALIA	369	388	409	426	431	432	441	380	394
BRUNEI	216	193	181	203	210	205	234	235	163
CHINA	1,090	1,315	1,490	1,670	1,874	2,082	2,122	2,114	2,012
INDIA	147	156	165	175	199	226	245	182	291
INDONESIA	1,339	1,375	1,307	1,504	1,686	1,635	1,591	1,577	1,605
MALAYSIA	91	81	98	165	184	217	283	283	264
OTHER	25	25	23	24	25	25	58	77	59
TOTAL	**3,276**	**3,532**	**3,672**	**4,167**	**4,609**	**4,823**	**4,974**	**4,848**	**4,788**
WORLD TOTAL	**55,674**	**55,852**	**52,880**	**57,312**	**59,685**	**60,057**	**62,535**	**59,538**	**55,788**

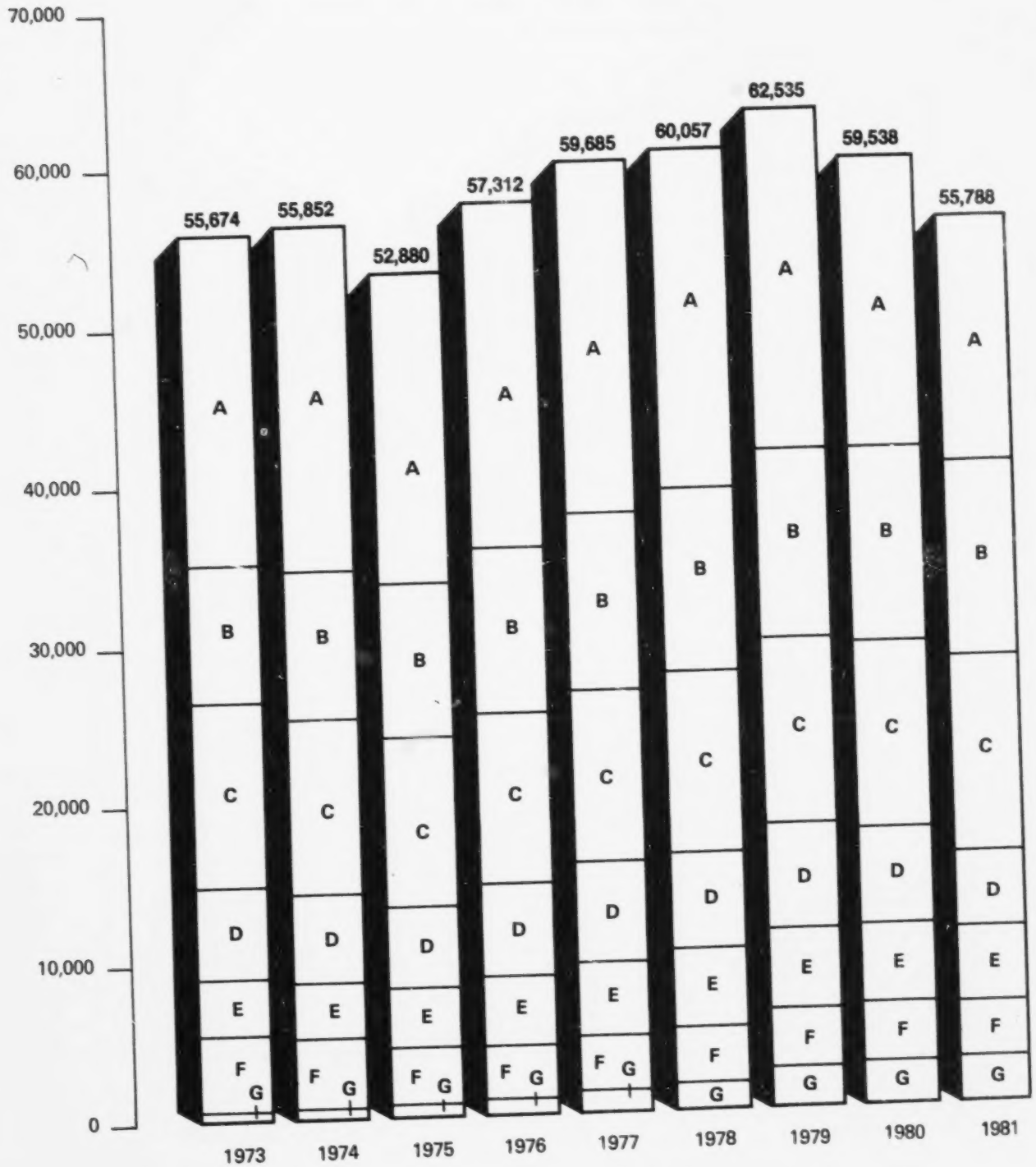
[a]Preliminary.

Note: Includes lease condensate.

Sources: Refer to Appendix A.

WORLD CRUDE OIL PRODUCTION

(Thousand Barrels per Day)



Regions

- A Middle East
- B Eastern Europe and U.S.S.R.
- C North America
- D Africa
- E Far East and Oceania
- F Central and South America
- G Western Europe

Table 9. WORLD NATURAL GAS PLANT LIQUIDS PRODUCTION, 1973-1981

(Thousand Barrels per Day)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	320	310	310	285	290	265	290	329	325
MEXICO	75	80	80	95	105	115	150	193	241
UNITED STATES	1,738	1,688	1,633	1,603	1,618	1,567	1,584	1,573	1,609
TOTAL	**2,133**	**2,078**	**2,023**	**1,983**	**2,013**	**1,947**	**2,024**	**2,095**	**2,175**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	11	11	11	11	11	13	13	13	12
BOLIVIA	4	4	4	4	5	5	5	5	4
BRAZIL	7	7	7	5	6	5	5	6	7
CHILE	7	7	7	7	12	12	12	12	10
COLOMBIA	11	11	11	10	6	5	5	6	6
VENEZUELA	89	84	76	77	78	61	69	60	55
OTHER	6	6	6	6	5	7	7	11	12
TOTAL	**135**	**130**	**122**	**122**	**123**	**108**	**116**	**113**	**106**
WESTERN EUROPE									
FRANCE	26	27	26	26	26	26	26	26	27
NETHERLANDS	7	6	7	7	7	7	7	6	6
NORWAY	(*)	(*)	5	20	20	35	40	40	50
SPAIN	5	5	15	15	30	40	45	45	50
UNITED KINGDOM	3	2	2	2	2	3	3	4	4
OTHER	**41**	**41**	**55**	**70**	**85**	**111**	**121**	**121**	**137**
TOTAL									
EASTERN EUROPE AND U.S.S.R.									
HUNGARY	4	5	6	8	11	15	19	20	20
ROMANIA	10	10	11	11	11	11	11	14	14
U.S.S.R.	147	246	252	296	311	326	334	343	347
OTHER	1	1	1	1	(*)	1	1	1	1
TOTAL	**161**	**262**	**269**	**316**	**333**	**352**	**364**	**378**	**382**
MIDDLE EAST									
IRAN	40	45	45	45	40	45	10	9	9
IRAQ	(*)	(*)	(*)	(*)	5	5	10	8	5
KUWAIT	60	50	50	50	55	75	95	95	96
QATAR	(*)	5	10	10	5	5	10	10	24
SAUDI ARABIA	90	130	140	185	215	250	303	369	433
UNITED ARAB EMIRATES	(*)	(*)	(*)	(*)	15	30	30	35	60
OTHER	0	0	0	0	0	0	0	8	8
TOTAL	**191**	**231**	**246**	**291**	**335**	**410**	**458**	**534**	**635**
AFRICA									
ALGERIA	30	50	60	69	71	96	139	137	213
EGYPT	1	1	1	3	12	17	17	17	17
LIBYA	35	20	30	40	40	40	40	40	35
TOTAL	**66**	**71**	**91**	**112**	**123**	**153**	**196**	**194**	**265**
FAR EAST AND OCEANIA									
AUSTRALIA	50	50	50	50	55	60	60	60	60
BRUNEI	10	15	20	25	30	30	35	35	25
INDONESIA	(*)	(*)	(*)	10	10	30	40	70	95
OTHER	3	3	3	3	3	4	4	4	7
TOTAL[b]	**63**	**68**	**73**	**88**	**98**	**124**	**139**	**169**	**187**
WORLD TOTAL	**2,790**	**2,880**	**2,879**	**2,983**	**3,111**	**3,208**	**3,418**	**3,604**	**3,887**

[a]Preliminary.

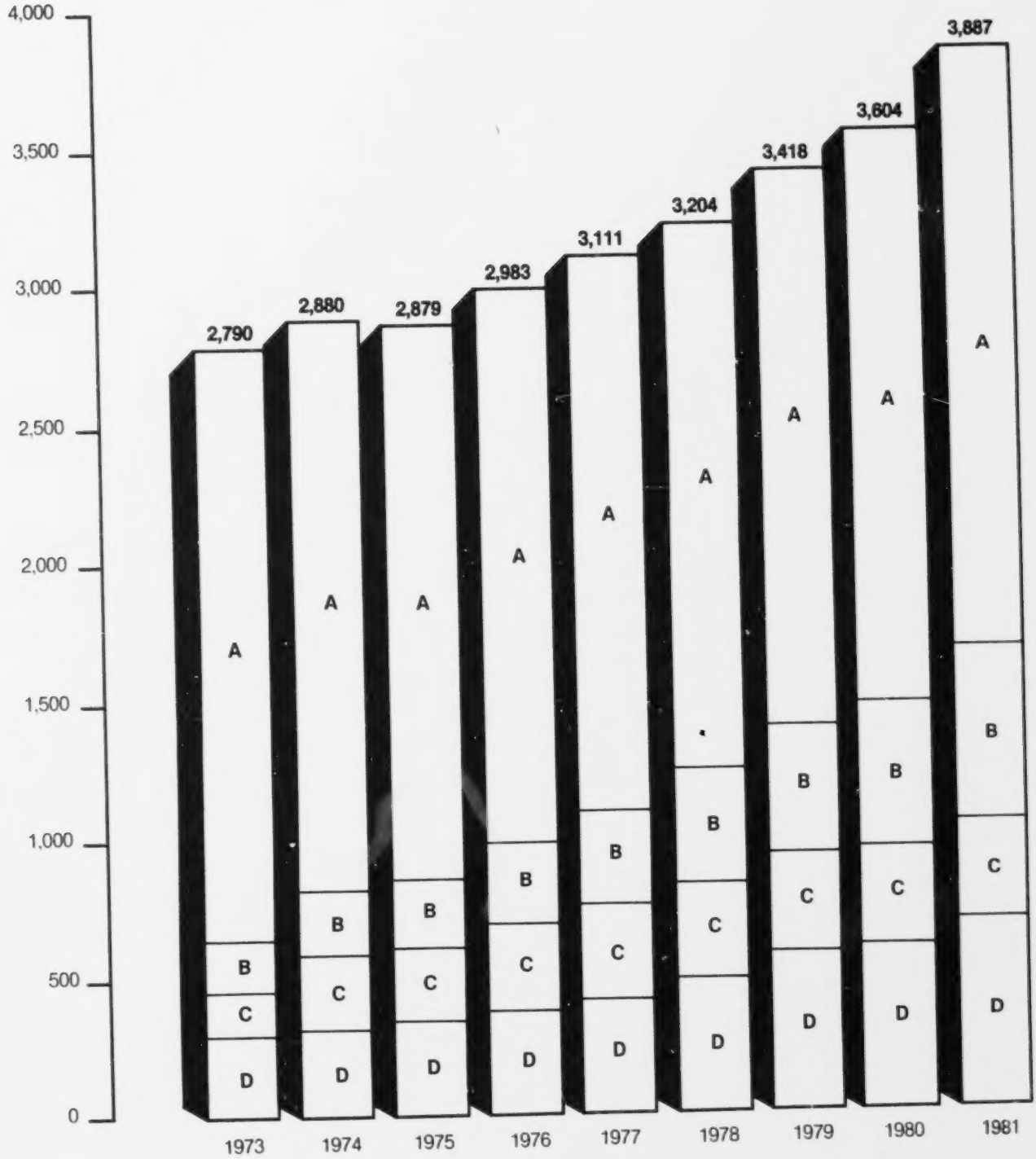
[b]Does not include China, for which data are unavailable.

*Denotes less than one-half the unit of measure.

Sources: Refer to Appendix A.

WORLD NATURAL GAS PLANT LIQUIDS PRODUCTION

(Thousand Barrels per Day)



Regions

A North America
B Middle East
C Eastern Europe and U.S.S.R.
D Other

Table 10. WORLD NATURAL GAS PRODUCTION (DRY), 1973-1981

(Trillion Cubic Feet)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	2.45	2.42	2.45	2.46	2.59	2.47	2.66	2.65	2.47
MEXICO	.50	.52	.52	.51	.54	.67	.81	1.01	1.10
UNITED STATES	21.73	20.71	19.24	19.10	19.16	19.12	19.66	19.60	19.42
TOTAL	**24.68**	**23.65**	**22.20**	**22.07**	**22.29**	**22.27**	**23.13**	**23.26**	**22.99**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	.24	.26	.27	.27	.28	.28	.26	.28	.35
BOLIVIA	.06	.06	.06	.06	.07	.06	.08	.08	.07
CHILE	.24	.21	.14	.18	.21	.31	.31	.11	.14
COLOMBIA	.13	.11	.07	.07	.11	.13	.12	.11	.11
TRINIDAD AND TOBAGO	.06	.06	.05	.09	.15	.16	.16	.18	.19
VENEZUELA	.46	.48	.45	.40	.39	.40	.41	.52	.58
OTHER	.02	.04	.04	.05	.06	.16	.23	.18	.08
TOTAL	**1.21**	**1.21**	**1.09**	**1.11**	**1.26**	**1.50**	**1.56**	**1.46**	**1.52**
WESTERN EUROPE									
FRANCE	.27	.27	.27	.26	.26	.23	.24	.27	.29
GERMANY, WEST	.71	.73	.67	.68	.68	.72	.73	.67	.68
ITALY	.54	.54	.52	.55	.48	.48	.46	.43	.49
NETHERLANDS	2.50	2.87	3.21	3.50	2.93	2.50	2.72	2.70	2.50
NORWAY	.00	(*)	.01	.01	.09	.39	.91	.89	.92
UNITED KINGDOM	1.00	1.21	1.26	1.32	1.38	1.31	1.36	1.29	1.34
OTHER	.13	.13	.14	.14	.19	.14	.17	.16	.16
TOTAL	**5.15**	**5.75**	**6.07**	**6.46**	**6.01**	**5.79**	**6.59**	**6.40**	**6.38**
EASTERN EUROPE AND U.S.S.R.									
GERMANY, EAST	.25	.27	.26	.30	.30	.30	.23	.30	.30
HUNGARY	.17	.18	.18	.21	.23	.26	.23	.21	.21
POLAND	.21	.20	.21	.24	.26	.28	.26	.22	.22
ROMANIA	.93	.96	1.04	1.14	1.20	1.07	1.20	1.20	1.44
U.S.S.R.	8.35	9.20	10.22	11.33	12.22	13.14	14.36	15.37	16.42
OTHER	.05	.05	.05	.04	.04	.05	.04	.07	.04
TOTAL	**9.96**	**10.87**	**11.95**	**13.27**	**14.26**	**15.11**	**16.32**	**17.38**	**18.63**
MIDDLE EAST									
BAHRAIN	.06	.07	.07	.08	.08	.08	.10	.10	.13
IRAN	.63	.73	.72	.74	.78	1.04	.71	.29	.06
KUWAIT	.19	.19	.18	.20	.21	.23	.30	.24	.27
SAUDI ARABIA	.16	.22	.22	.29	.33	.36	.41	.52	.43
UNITED ARAB EMIRATES	.03	.04	.08	.06	.19	.17	.19	.20	.23
OTHER	.11	.10	.15	.14	.12	.12	.24	.26	.28
TOTAL	**1.18**	**1.38**	**1.42**	**1.50**	**1.72**	**2.00**	**1.95**	**1.61**	**1.40**
AFRICA									
ALGERIA	.17	.20	.21	.35	.29	.33	.30	.68	1.15
LIBYA	.11	.10	.12	.13	.14	.17	.24	.18	.15
OTHER	.04	.05	.04	.05	.07	.08	.11	.10	.07
TOTAL	**.32**	**.34**	**.37**	**.54**	**.50**	**.57**	**.66**	**.96**	**1.37**
FAR EAST AND OCEANIA									
AUSTRALIA	.14	.17	.18	.21	.24	.26	.28	.34	.40
BRUNEI	.07	.15	.19	.25	.29	.30	.29	.32	.30
CHINA	.25	.29	.33	.36	.41	.50	.51	.50	.46
INDONESIA	.03	.04	.08	.13	.20	.20	.39	.63	.63
JAPAN	.09	.09	.09	.09	.10	.09	.09	.08	.08
PAKISTAN	.13	.15	.16	.16	.18	.19	.23	.29	.42
OTHER	.21	.22	.25	.29	.32	.30	.27	.29	.34
TOTAL	**.92**	**1.09**	**1.27**	**1.48**	**1.73**	**1.88**	**2.06**	**2.44**	**2.68**
WORLD TOTAL	**43.41**	**44.25**	**44.38**	**46.44**	**47.78**	**49.07**	**52.26**	**53.52**	**54.93**

[a]Preliminary.

*Denotes less than one-half the unit of measure.

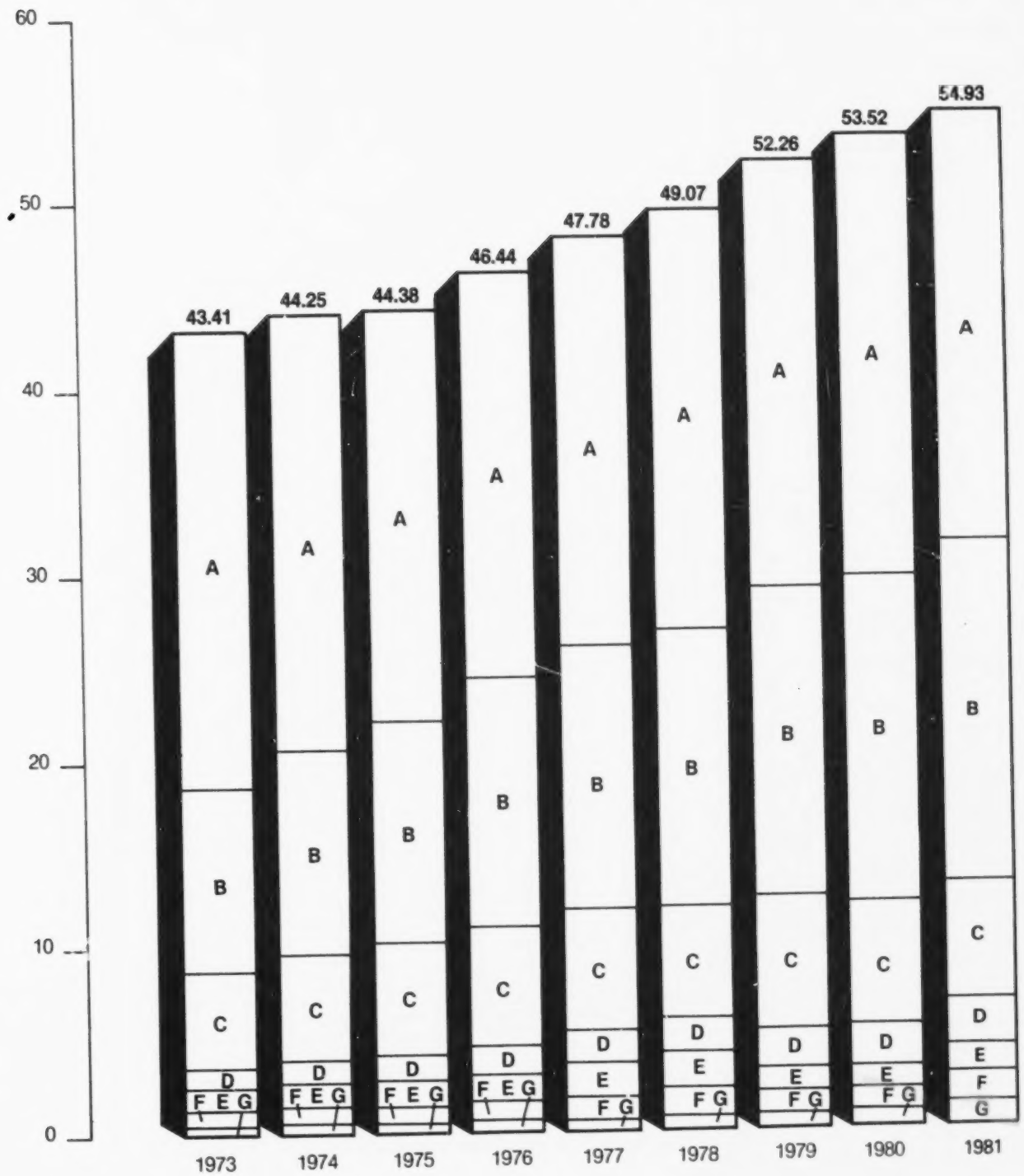
Note: Sum of components may not equal total due to independent rounding.

Note: Temperature and pressure at measurement are not reported.

Sources: Refer to Appendix A.

WORLD NATURAL GAS PRODUCTION (DRY)

(Trillion Cubic Feet)



Regions

- **A** North America
- **B** Eastern Europe and U.S.S.R.
- **C** Western Europe
- **D** Far East and Oceania
- **E** Middle East
- **F** Central and South America
- **G** Africa

Table 11. WORLD COAL PRODUCTION, 1973-1981

(Million Short Tons)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	23	23	28	28	32	34	33	40	44
MEXICO	5	6	6	6	7	7	8	8	8
UNITED STATES	599	610	655	685	697	670	781	830	820
TOTAL	**626**	**639**	**688**	**719**	**736**	**711**	**822**	**878**	**872**
CENTRAL AND SOUTH AMERICA									
BRAZIL	2	3	3	4	4	4	8	9	10
COLOMBIA	4	3	4	4	4	4	5	6	6
OTHER	2	2	2	2	2	2	2	1	2
TOTAL	**8**	**9**	**9**	**10**	**10**	**10**	**16**	**16**	**17**
WESTERN EUROPE									
BELGIUM	10	9	8	8	8	7	7	7	7
FRANCE	31	28	28	28	27	26	23	23	24
GERMANY, WEST	238	244	238	247	229	228	239	239	241
GREECE	14	16	20	25	26	25	26	26	30
SPAIN	14	15	15	16	19	22	24	32	39
TURKEY	12	11	12	11	13	15	22	18	23
UNITED KINGDOM	143	121	142	137	135	136	135	141	139
YUGOSLAVIA	36	37	39	41	43	44	46	52	58
OTHER	8	8	7	7	6	6	6	6	6
TOTAL	**508**	**488**	**509**	**518**	**506**	**509**	**529**	**543**	**566**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	30	27	31	28	28	28	31	33	32
CZECHOSLOVAKIA	120	122	127	130	134	136	137	136	134
GERMANY, EAST	272	269	272	273	280	279	282	285	285
HUNGARY	29	29	27	28	28	28	28	28	29
POLAND	216	222	233	241	250	258	264	254	219
ROMANIA	27	30	30	28	30	32	36	39	40
U.S.S.R.	736	755	773	784	796	798	792	790	776
OTHER	1	1	1	1	1	1	1	2	2
TOTAL	**1,431**	**1,458**	**1,494**	**1,513**	**1,546**	**1,560**	**1,571**	**1,566**	**1,517**
AFRICA									
SOUTH AFRICA	69	73	77	85	94	100	114	127	144
ZIMBABWE	3	3	3	3	3	3	4	4	3
OTHER	3	2	3	3	2	2	2	2	2
TOTAL	**75**	**78**	**82**	**91**	**100**	**105**	**120**	**133**	**149**
MIDDLE EAST, FAR EAST AND OCEANIA									
AUSTRALIA	94	100	105	117	119	124	139	140	148
CHINA	520	548	570	586	606	681	698	684	685
INDIA	89	96	109	116	115	116	118	125	142
JAPAN	25	22	26	20	20	21	19	20	20
KOREA, NORTH	41	43	44	45	45	45	48	50	50
KOREA, SOUTH	15	17	19	18	19	20	20	21	22
TAIWAN	4	3	3	4	3	3	3	3	3
OTHER	11	12	12	14	15	15	17	18	18
TOTAL	**800**	**842**	**890**	**921**	**942**	**1,026**	**1,063**	**1,061**	**1,087**
WORLD TOTAL	**3,447**	**3,511**	**3,673**	**3,772**	**3,840**	**3,921**	**4,121**	**4,197**	**4,208**

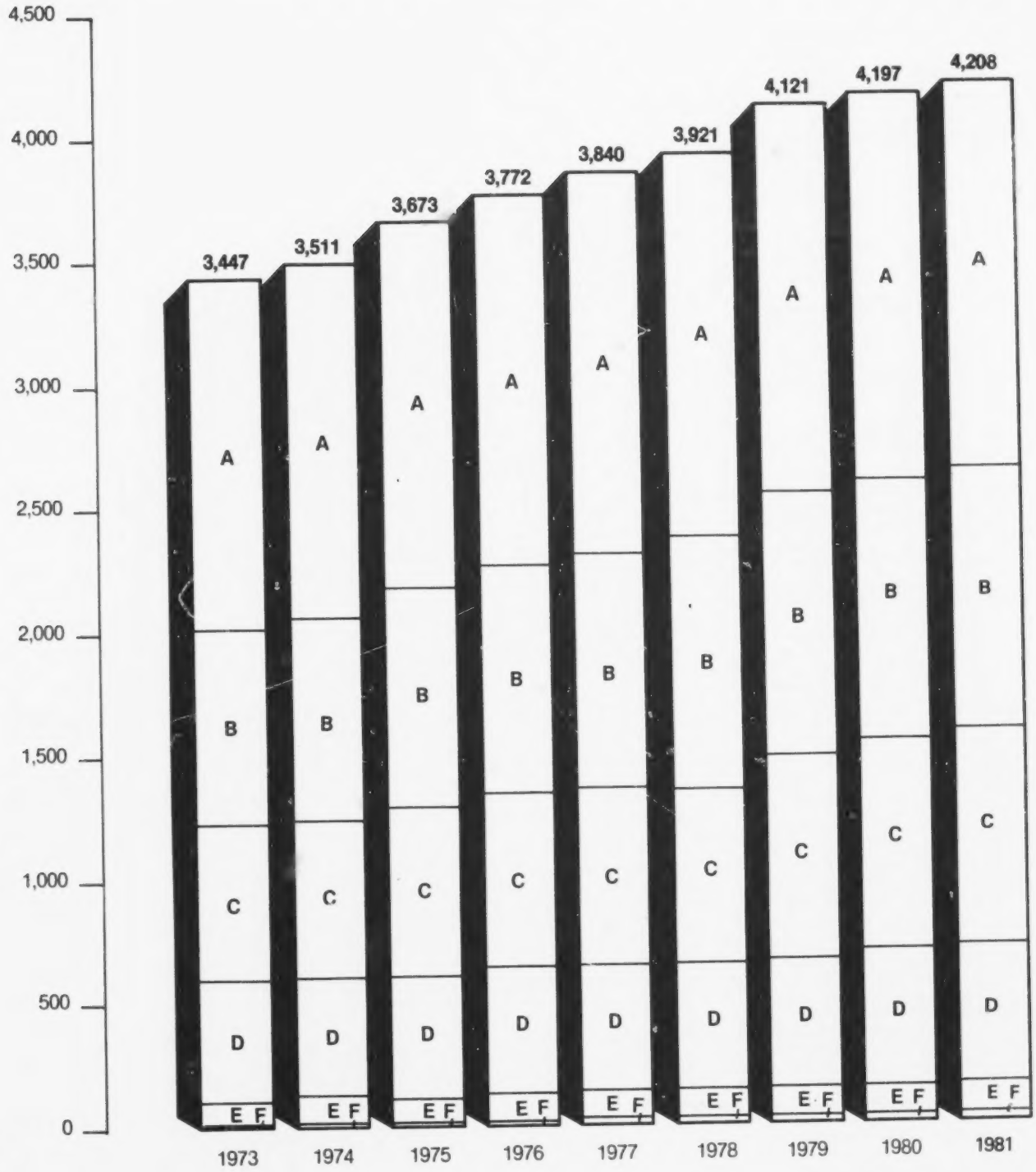
[a]Preliminary.

Note: Includes anthracite, subanthracite, bituminous, subbituminous, lignite, and brown coal.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

WORLD COAL PRODUCTION
(Million Short Tons)



Regions

- **A** Eastern Europe and U.S.S.R.
- **B** Middle East, Far East, and Oceania
- **C** North America
- **D** Western Europe
- **E** Africa
- **F** Central and South America

Table 12. WORLD HYDROELECTRIC POWER PRODUCTION (NET), 1973-1981

(Billion Kilowatt Hours)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH AMERICA									
CANADA	192.84	210.94	202.40	212.79	220.27	234.03	243.04	251.00	263.16
MEXICO	16.23	16.71	15.14	17.19	19.08	16.16	17.88	16.15	17.00
UNITED STATES	275.43	304.21	303.15	286.92	223.60	283.47	283.08	279.18	263.84
TOTAL	**484.51**	**531.86**	**520.69**	**516.90**	**462.94**	**533.66**	**544.00**	**546.33**	**544.01**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	2.96	4.98	5.14	4.95	5.71	7.67	10.54	15.04	14.58
BRAZIL	58.29	65.49	73.84	82.36	93.48	102.75	115.14	126.93	130.00
CHILE	5.27	5.99	6.07	6.17	6.44	6.75	6.87	7.34	7.42
COLOMBIA	8.01	8.92	9.75	10.27	10.51	12.10	13.17	13.67	13.86
PERU	4.72	5.17	5.41	5.74	5.97	6.14	6.48	7.55	7.92
VENEZUELA	6.10	7.06	8.81	10.45	11.81	12.03	13.26	14.45	14.85
OTHER	7.23	7.74	7.74	8.40	8.57	10.13	10.82	12.46	13.25
TOTAL	**92.59**	**105.35**	**116.77**	**128.35**	**142.50**	**157.57**	**176.28**	**197.46**	**201.89**
WESTERN EUROPE									
AUSTRIA	18.97	22.43	23.51	20.31	24.62	24.64	27.77	28.80	29.70
FINLAND	10.41	12.51	12.03	9.34	12.00	9.65	10.66	10.04	11.00
FRANCE	47.54	56.83	59.89	48.65	76.14	68.54	66.99	69.81	72.30
GERMANY, WEST	15.27	17.62	16.85	13.82	17.32	18.20	18.22	18.37	19.65
ITALY	38.90	39.13	42.35	40.70	52.48	47.14	47.94	47.24	45.42
NORWAY	72.16	75.88	76.64	81.22	71.48	80.05	88.09	83.01	91.77
PORTUGAL	7.28	7.81	6.37	4.84	9.91	10.60	11.63	7.87	4.94
SPAIN	29.23	31.03	26.17	22.28	40.33	41.08	46.86	30.50	29.70
SWEDEN	59.20	56.62	56.98	54.17	52.80	57.05	60.28	57.70	58.00
SWITZERLAND	28.82	28.56	33.07	26.62	36.29	32.51	32.34	33.61	34.00
UNITED KINGDOM	4.52	4.78	4.92	5.09	5.20	5.19	5.43	5.09	5.36
YUGOSLAVIA	16.23	20.45	19.12	20.35	24.11	24.95	26.29	27.88	29.70
OTHER	9.05	10.49	11.67	14.21	14.65	16.65	18.79	19.78	20.63
TOTAL	**357.59**	**384.15**	**390.49**	**361.60**	**437.35**	**436.26**	**461.28**	**439.70**	**452.16**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	2.15	2.06	2.43	2.92	3.49	2.88	3.28	3.86	3.96
CZECHOSLOVAKIA	2.38	4.00	3.78	3.43	4.33	4.05	4.13	4.21	4.26
ROMANIA	7.47	8.39	8.63	8.03	9.25	10.51	11.23	11.98	11.98
U.S.S.R.	121.12	130.71	124.73	134.38	145.54	168.00	170.30	182.16	179.19
OTHER	4.30	5.03	5.06	4.88	5.39	5.57	5.75	5.84	5.99
TOTAL	**137.42**	**150.19**	**144.61**	**153.64**	**168.01**	**191.01**	**194.69**	**208.05**	**205.38**
MIDDLE EAST									
IRAN	2.81	3.39	3.41	3.93	3.96	3.96	3.96	3.02	3.96
OTHER	.78	1.53	2.08	2.61	3.11	3.54	3.85	3.86	4.01
TOTAL	**3.59**	**4.92**	**5.49**	**6.54**	**7.07**	**7.50**	**7.81**	**6.88**	**7.97**
AFRICA									
EGYPT	5.10	6.06	6.73	7.99	8.95	9.23	9.41	9.50	9.60
GHANA	3.83	4.04	3.91	4.13	4.35	3.68	4.58	4.65	4.65
MOZAMBIQUE	.19	.29	.24	1.49	4.44	7.28	10.74	13.41	13.86
ZAIRE	3.73	3.36	3.67	3.97	4.02	4.06	4.16	4.26	4.45
ZAMBIA	4.83	5.74	5.94	6.90	8.54	7.77	8.66	8.80	9.00
ZIMBABWE	5.59	5.17	5.32	4.86	3.45	3.81	3.53	4.01	4.01
OTHER	10.17	10.81	11.36	13.02	13.49	12.88	14.93	15.82	16.66
TOTAL	**33.45**	**35.87**	**37.16**	**42.36**	**47.25**	**48.71**	**56.03**	**60.46**	**62.28**
FAR EAST AND OCEANIA									
AUSTRALIA	11.91	13.57	15.06	15.43	13.58	14.50	16.01	16.90	17.82
CHINA	37.62	42.57	44.55	50.49	47.12	44.15	49.60	55.04	59.40
INDIA	28.69	27.60	32.98	34.50	37.64	46.70	45.05	46.40	49.50
JAPAN	70.96	83.93	85.05	87.51	75.51	73.90	84.19	91.17	93.00
KOREA, NORTH	12.38	13.86	16.33	16.83	17.32	19.30	20.29	22.27	23.76
NEW ZEALAND	14.01	14.05	16.70	14.77	14.44	16.07	15.35	16.18	16.83
PAKISTAN	4.54	4.39	4.61	5.71	5.45	5.83	8.27	10.27	10.89
PHILIPPINES	2.35	2.03	2.25	2.77	2.17	2.78	2.85	3.52	3.96
THAILAND	1.86	2.42	3.16	3.60	3.23	2.09	3.23	3.66	3.96
OTHER	7.05	9.28	8.72	8.90	9.23	10.71	12.16	12.03	13.29
TOTAL	**191.36**	**212.72**	**229.62**	**240.50**	**225.70**	**236.04**	**257.00**	**277.45**	**292.41**
WORLD TOTAL	**1,300.50**	**1,424.65**	**1,444.88**	**1,449.90**	**1,490.82**	**1,610.77**	**1,697.09**	**1,736.33**	**1,766.06**

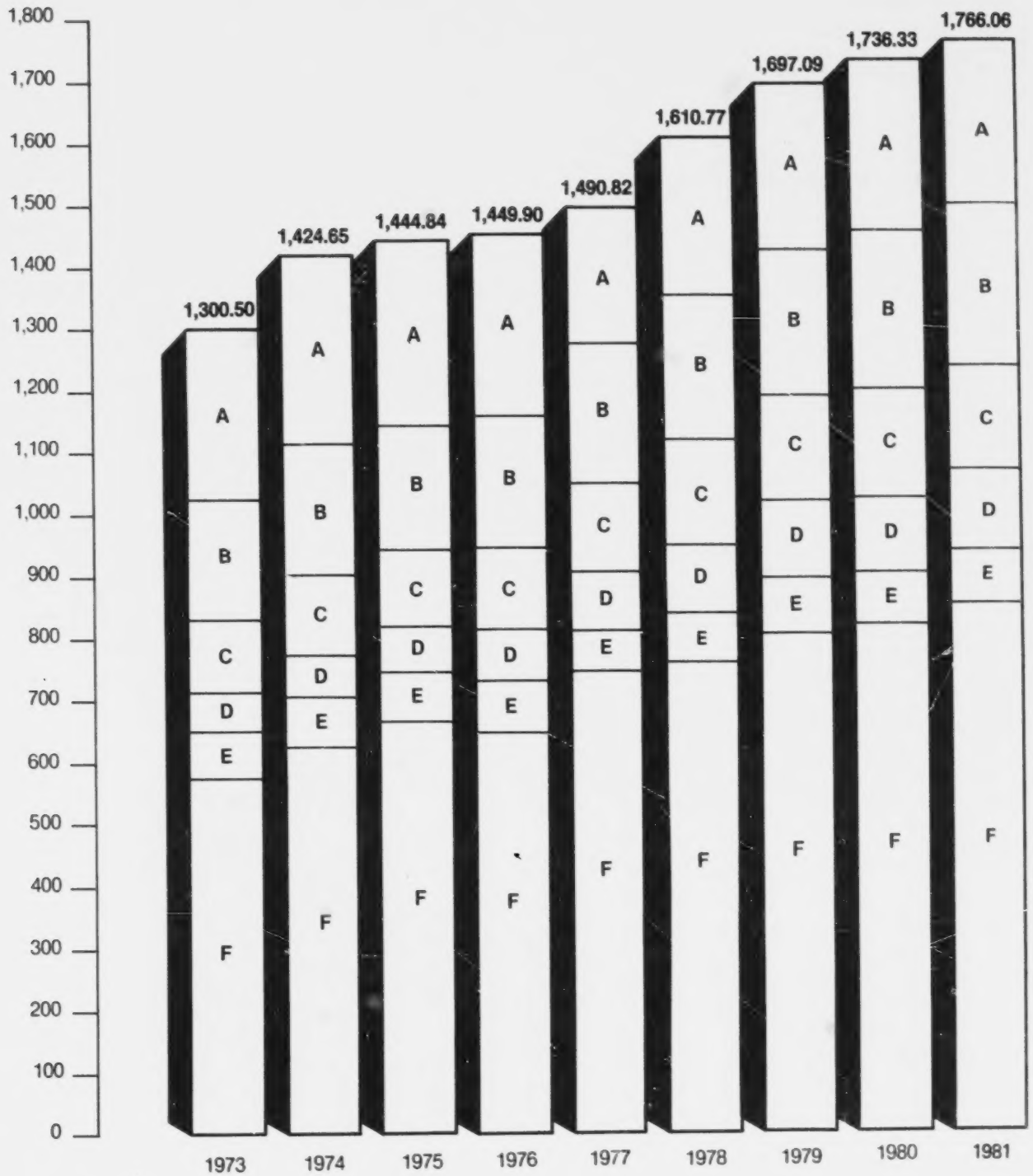
[a]Preliminary.

Note: World hydroelectric power production includes industrial and utility production of hydroelectric power.

Sources: Refer to Appendix A.

WORLD HYDROELECTRIC POWER PRODUCTION (NET)

(Billion Kilowatt Hours)



Countries

A United States
B Canada
C U.S.S.R.
D Brazil
E Norway
F Other

Table 13. WORLD NUCLEAR ELECTRIC POWER PRODUCTION (NET), 1973-1981

(Billion Kilowatt Hours)

REGION AND COUNTRY	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]
NORTH, CENTRAL AND SOUTH AMERICA									
ARGENTINA	0.00	0.98	2.39	2.44	1.55	2.75	2.56	2.22	2.67
CANADA	17.36	14.64	12.58	17.11	25.42	31.28	36.46	38.35	41.11
UNITED STATES	83.48	113.98	172.50	191.10	250.88	276.40	255.16	251.12	272.67
TOTAL	**100.84**	**129.60**	**187.48**	**210.66**	**277.86**	**310.43**	**294.18**	**291.69**	**316.46**
WESTERN EUROPE									
BELGIUM	.00	.11	6.42	9.51	11.26	11.87	10.80	11.86	12.20
FINLAND	.00	.00	.00	.00	2.54	3.12	6.34	6.63	13.73
FRANCE	11.04	13.97	17.38	14.76	17.04	29.02	37.93	58.17	99.95
GERMANY, WEST	11.31	11.44	20.59	23.30	34.02	34.09	40.07	41.49	50.68
ITALY	2.98	3.24	3.61	3.62	3.21	4.21	2.50	2.10	2.57
NETHERLANDS	1.05	3.11	3.17	3.68	3.52	3.86	3.31	3.99	3.47
SPAIN	6.22	6.86	7.17	7.18	6.20	7.27	6.36	4.93	8.97
SWEDEN	2.00	1.56	11.42	15.19	18.90	22.59	19.99	25.39	35.79
SWITZERLAND	5.88	6.68	7.33	7.50	7.67	7.93	11.26	13.63	14.43
UNITED KINGDOM	26.60	32.32	28.98	34.97	36.17	34.83	36.55	35.33	36.93
TOTAL	**67.09**	**79.30**	**106.08**	**119.71**	**140.54**	**158.78**	**175.11**	**203.53**	**279.00**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	.00	.88	2.42	4.74	5.59	5.61	5.89	5.86	5.90
CZECHOSLOVAKIA	.22	.47	.18	.42	.10	.10	1.80	4.30	5.00
GERMANY, EAST	.33	2.07	2.60	5.01	4.95	6.29	9.31	11.29	12.00
U.S.S.R.	11.12	17.10	19.19	23.75	32.30	42.47	52.06	69.25	81.32
TOTAL	**11.67**	**20.52**	**24.39**	**33.92**	**42.94**	**54.47**	**69.06**	**90.70**	**104.22**
FAR EAST AND OCEANIA									
INDIA	1.84	2.35	2.39	3.03	2.64	2.15	3.05	2.73	2.90
JAPAN	8.97	17.19	21.09	35.00	26.73	50.53	58.90	78.66	79.34
KOREA, SOUTH	.00	.00	.00	.00	.07	2.21	2.99	3.30	2.75
PAKISTAN	.43	.55	.52	.46	.32	.22	.03	.08	.22
TAIWAN	.00	.00	.00	.00	.09	2.54	6.01	7.79	10.13
TOTAL	**11.24**	**20.10**	**23.99**	**38.50**	**29.85**	**57.68**	**70.99**	**92.57**	**95.35**
WORLD TOTAL	**190.84**	**249.52**	**381.94**	**402.79**	**491.19**	**581.33**	**609.35**	**678.49**	**795.03**

[a]Preliminary.

Note: No production is reported for Africa or the Middle East.

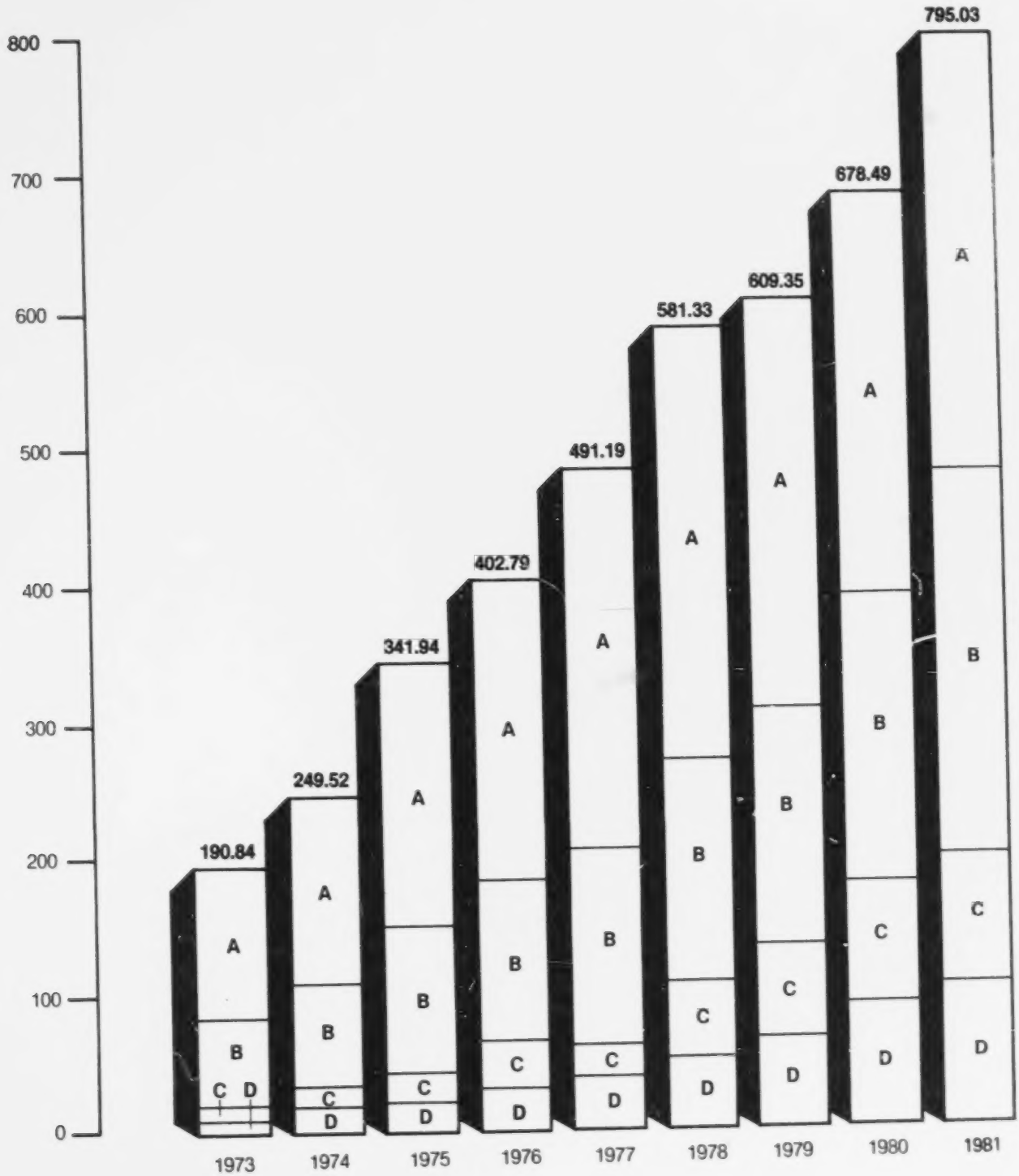
Note: Sum of components may not equal total due to independent rounding.

Note: Figures are reported for net generation as opposed to gross. Net figures are generally less than gross by about 5 percent, which represents the energy consumed by the generating plants.

Sources: Refer to Appendix A.

WORLD NUCLEAR ELECTRIC POWER PRODUCTION (NET)

(Billion Kilowatt Hours)



Regions

A North, Central, and South America
B Western Europe
C Far East and Oceania
D Eastern Europe and U.S.S.R.

3

World Petroleum Supply, Disposition, and Refining Capacity

Table 14. WORLD PETROLEUM SUPPLY AND DISPOSITION, 1980

(Thousand Barrels per Day)

REGION AND COUNTRY	PRIMARY SUPPLY			DISPOSITION			
	Crude Oil[a] Production	Crude Oil Imports	Refined Petroleum Product Imports	Crude Oil Exports	Refined Petroleum Product Exports	Apparent Consumption[b] (Including Bunkers)	Bunkers[c]
NORTH AMERICA							
CANADA	1,764	534	43	205	127	1,947	28
MEXICO	2,129	3	15	828	46	1,222	1
UNITED STATES	*10,832	5,268	1,646	287	258	17,056	532
OTHER	0	3	12	0	0	12	3
TOTAL	**14,725**	**5,817**	**1,716**	**1,320**	**431**	**20,237**	**564**
CENTRAL AND SOUTH AMERICA							
ARGENTINA	504	43	17	0	31	499	8
BAHAMA ISLANDS	0	246	16	27	155	46	15
BRAZIL	**227	809	39	1	24	1,164	21
CHILE	45	64	(*)	0	2	107	2
COLOMBIA	132	23	36	0	26	184	5
CUBA	3	124	63	0	0	196	0
ECUADOR	206	0	13	110	22	84	5
NETHERLANDS ANTILLES	0	623	39	20	489	137	44
PANAMA REPUBLIC	0	42	44	0	9	78	53
PERU	198	0	1	57	20	129	2
PUERTO RICO	0	232	115	0	63	299	3
TRINIDAD AND TOBAGO	216	144	1	136	175	61	18
VENEZUELA	2,228	2	3	1,286	536	337	15
VIRGIN ISLANDS	0	546	19	0	385	117	19
OTHER	37	167	116	0	12	309	10
TOTAL	**3,796**	**3,120**	**521**	**1,638**	**1,987**	**3,787**	**218**
WESTERN EUROPE							
AUSTRIA	29	171	58	0	3	232	(*)
BELGIUM	0	680	220	(*)	358	543	49
DENMARK	6	123	178	9	36	290	20
FINLAND	0	259	58	0	42	271	16
FRANCE	52	2,237	367	0	333	2,256	61
GERMANY, WEST	92	2,004	830	1	151	2,707	80
GREECE	0	365	123	63	155	262	30
IRELAND	0	43	82	0	4	119	6
ITALY	39	1,807	405	0	246	1,876	71
LUXEMBOURG	0	0	0	0	0	0	0
NETHERLANDS	31	1,026	378	(*)	808	727	154
NORWAY	568	129	55	475	26	200	6
PORTUGAL	0	162	22	0	22	154	0
SPAIN	33	970	87	0	45	990	17
SWEDEN	0	362	275	2	93	527	16
SWITZERLAND	0	92	210	0	1	307	15
TURKEY	46	209	62	0	5	314	3
UNITED KINGDOM	1,667	903	196	771	299	1,725	110
YUGOSLAVIA	98	223	19	0	12	301	0
OTHER	0	0	25	0	0	25	2
TOTAL	**2,651**	**11,763**	**3,650**	**1,321**	**2,642**	**13,826**	**654**
EASTERN EUROPE AND U.S.S.R.							
BULGARIA	6	260	38	0	3	306	0
CZECHOSLOVAKIA	2	384	27	0	11	391	0
GERMANY, EAST	1	438	1	0	47	388	0
HUNGARY	58	166	36	0	15	244	0
POLAND	9	328	91	0	32	387	1
ROMANIA	252	321	1	0	194	374	0
U.S.S.R.	12,116	139	15	2,430	926	8,914	82
OTHER	44	0	(*)	0	1	46	0
TOTAL	**12,487**	**2,036**	**209**	**2,430**	**1,230**	**11,050**	**83**

Table 14. WORLD PETROLEUM SUPPLY AND DISPOSITION, 1980 (Continued)

(Thousand Barrels per Day)

REGION AND COUNTRY	PRIMARY SUPPLY			DISPOSITION			
	Crude Oil[a] Production	Crude Oil Imports	Refined Petroleum Product Imports	Crude Oil Exports	Refined Petroleum Product Exports	Apparent Consumption[b] (Including Bunkers)	Bunkers[c]
MIDDLE EAST							
BAHRAIN	56	192	0	0	225	29	9
IRAN	1,671	0	1	897	106	570	24
IRAQ	2,522	0	(*)	2,459	26	217	2
ISRAEL	1	152	29	0	11	170	0
KUWAIT	1,751	0	0	1,261	251	106	36
OMAN	282	2	8	279	0	8	0
QATAR	492	0	5	466	0	15	1
SAUDI ARABIA	10,269	0	33	9,276	538	500	86
SYRIA	164	83	39	133	13	138	0
UNITED ARAB EMIRATES	1,744	3	42	1,708	2	55	3
OTHER	0	128	31	0	19	141	23
TOTAL	**18,942**	**555**	**188**	**16,474**	**1,190**	**1,949**	**185**
AFRICA							
ALGERIA	1,149	0	36	998	151	111	2
ANGOLA	150	0	3	152	2	20	7
EGYPT	612	0	1	310	30	247	28
GABON	175	0	5	151	17	16	2
KENYA	0	63	6	0	17	62	9
LIBYA	1,827	0	35	1,691	85	85	3
MOROCCO	1	92	6	0	6	89	7
NIGERIA	2,055	0	20	1,960	9	148	2
SOUTH AFRICA	0	316	19	0	3	312	60
TUNISIA	110	20	14	97	3	43	2
OTHER	146	193	170	153	43	322	26
TOTAL	**6,225**	**685**	**316**	**5,512**	**365**	**1,457**	**147**
FAR EAST AND OCEANIA							
AUSTRALIA	440	183	74	2	84	594	41
BRUNEI	270	0	1	240	0	4	0
CHINA	2,114	0	3	280	48	1,834	0
HONG KONG	0	0	128	0	4	124	27
INDIA	182	325	138	0	2	643	3
INDONESIA	1,647	89	182	1,237	135	408	6
JAPAN	11	4,414	683	0	12	4,960	183
KOREA, SOUTH	0	499	38	0	(*)	537	4
MALAYSIA	283	74	34	227	6	134	4
NEW ZEALAND	8	55	27	0	(*)	91	11
PAKISTAN	10	79	33	0	18	94	7
PHILIPPINES	15	179	40	1	2	225	3
SINGAPORE	0	713	72	2	567	218	80
TAIWAN	7	364	63	9	18	415	10
THAILAND	(*)	169	66	0	(*)	224	3
OTHER	30	132	133	1	24	261	39
TOTAL	**5,017**	**7,273**	**1,716**	**1,990**	**920**	**10,766**	**420**
WORLD TOTAL	**63,883**	**31,249**	**8,316**	**30,685**	**8,725**	**63,033**	**2,271**

[a]Data include natural gas plant liquids for the following countries: Canada, Mexico, United States, Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Peru, Trinidad and Tobago, Venezuela, Austria, France, Italy, Netherlands, Norway, Spain, United Kingdom, Yugoslavia, Czechoslovakia, Hungary, Poland, Romania, U.S.S.R., Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, Algeria, Egypt, Libya, Australia, Brunei, Indonesia, Japan, Malaysia, Pakistan, New Zealand, and Taiwan.

[b]Data represent apparent consumption which includes inland consumption, refinery fuel and loss, and bunkering. Apparent consumption is either an actual figure or is derived from the components of refined product output, plus imports, minus exports with no allowance for stock changes. Also includes, where available, liquefied petroleum gases sold directly for fuel and chemical uses from natural gas processing plants.

[c]Includes reported figures only.

*Denotes less than one-half the unit of measure.

*Includes 662 MBD of refinery processing gain and other hydrocarbon inputs to refineries.

**Includes 39 MBD of ethyl alcohol.

NA indicates not available.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

Table 15. WORLD OUTPUT OF REFINED PETROLEUM PRODUCTS, 1980

(Thousand Barrels per Day)

REGION AND COUNTRY	GASOLINE		KEROSENE AND JET FUEL							
	Motor Gasoline	Total (Including Aviation Gasoline)	Jet Fuel (As Reported)	Total	Distillate Fuel Oil	Residual Fuel Oil	Lubricants (Including Greases)	Other[a]	Refinery Fuel and Loss[b]	Total Output of Refined Petroleum Products
NORTH AMERICA										
CANADA	661	665	83	150	499	309	16	293	99	2,030
MEXICO	326	329	24	68	245	309	15	241	46	1,254
UNITED STATES	6,492	6,526	999	1,136	2,661	1,580	178	2,541	(C)	14,622
TOTAL	**7,479**	**7,520**	**1,106**	**1,353**	**3,405**	**2,199**	**209**	**3,075**	**145**	**17,906**
CENTRAL AND SOUTH AMERICA										
ARGENTINA	116	116	17	29	151	140	6	55	22	518
BAHAMA ISLANDS	1	1	23	23	32	98	(*)	26	5	185
BRAZIL	188	188	55	67	335	307	12	206	22	1,136
CHILE	23	23	3	8	24	30	0	11	4	100
COLOMBIA	50	51	10	17	23	44	1	10	15	160
CUBA	19	19	0	9	22	59	3	12	6	132
ECUADOR	23	23	3	9	15	41	1	1	3	94
NETHERLANDS ANTILLES	69	73	36	38	75	355	12	23	12	588
PANAMA	5	5	3	3	11	20	0	2	2	43
REPUBLIC	35	35	8	27	35	46	(*)	4	2	149
PERU	67	67	2	6	38	51	5	63	18	248
PUERTO RICO	42	43	9	18	38	118	3	6	9	234
TRINIDAD AND TOBAGO	157	158	32	44	173	453	9	84	23	943
VENEZUELA	74	74	26	36	109	191	0	55	19	483
VIRGIN ISLANDS	44	44	10	21	53	60	1	17	7	203
OTHER	**911**	**920**	**237**	**358**	**1,134**	**2,011**	**53**	**576**	**169**	**5,216**
TOTAL										
WESTERN EUROPE										
AUSTRIA	41	41	3	3	52	79	3	25	2	205
BELGIUM	128	128	37	38	221	185	1	73	35	681
DENMARK	26	26	(*)	1	55	37	0	9	8	135
FINLAND	44	44	5	5	87	77	0	29	13	255
FRANCE	431	431	100	103	819	564	30	219	154	2,321
GERMANY, WEST	484	484	29	29	855	300	25	341	164	2,198
GREECE	31	31	24	24	75	123	2	28	11	294
IRELAND	11	11	(*)	(*)	11	16	0	1	1	41
ITALY	353	358	40	91	514	655	20	169	136	1,943
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	169	171	72	81	348	272	11	140	60	1,082
NORWAY	27	27	4	13	71	32	0	18	9	170
PORTUGAL	22	22	10	12	39	57	1	15	9	155
SPAIN	124	124	49	50	221	385	6	161	35	982
SWEDEN	63	63	4	4	122	141	1	12	22	365
SWITZERLAND	25	25	5	5	41	15	0	9	3	98
TURKEY	43	43	3	13	59	103	3	29	7	258
UNITED KINGDOM	386	387	114	157	452	431	24	182	130	1,764
YUGOSLAVIA	60	60	7	8	68	121	9	23	6	294
OTHER	0	0	0	0	0	0	0	0	0	0
TOTAL	**2,468**	**2,477**	**506**	**639**	**4,112**	**3,592**	**136**	**1,480**	**805**	**13,241**
EASTERN EUROPE AND U.S.S.R.										
BULGARIA	43	43	0	5	71	109	3	11	29	271
CZECHOSLOVAKIA	35	35	0	11	84	171	7	27	40	375
GERMANY, EAST	77	77	0	11	125	162	8	24	27	434
HUNGARY	26	26	0	0	75	57	3	39	23	224
POLAND	76	76	0	5	104	72	10	37	23	327
ROMANIA	111	111	0	18	152	186	127	38	49	682
U.S.S.R.	1,707	1,707	0	762	2,344	2,711	210	956	1,134	9,825
OTHER	4	4	0	1	6	9	(*)	22	5	47
TOTAL	**2,080**	**2,080**	**0**	**815**	**2,962**	**3,478**	**369**	**1,155**	**1,328**	**12,185**

Table 15. WORLD OUTPUT OF REFINED PETROLEUM PRODUCTS, 1980 (Continued)

(Thousand Barrels per Day)

REGION AND COUNTRY	GASOLINE		KEROSENE AND JET FUEL							
	Motor Gasoline	Total (Including Aviation Gasoline)	Jet Fuel (As Reported)	Total	Distillate Fuel Oil	Residual Fuel Oil	Lubricants (Including Greases)	Other[a]	Refinery Fuel and Loss[b]	Total Output of Refined Petroleum Products
MIDDLE EAST										
BAHRAIN	24	24	38	40	65	74	(*)	37	4	245
IRAN	95	99	11	138	136	223	3	63	13	675
IRAQ	36	36	8	30	47	60	2	48	20	243
ISRAEL	20	24	12	17	31	53	1	16	11	152
KUWAIT	22	22	11	42	78	145	0	50	20	357
SAUDI ARABIA	71	71	1	35	122	243	0	413	18	902
SYRIA	21	21	0	11	31	42	0	6	2	112
OTHER	28	28	13	23	36	51	(*)	6	7	150
TOTAL	**317**	**325**	**98**	**335**	**545**	**890**	**7**	**640**	**95**	**2,836**
AFRICA										
ALGERIA	26	26	9	9	72	50	2	58	9	226
ANGOLA	1	1	1	2	4	10	0	(*)	1	19
EGYPT	43	43	3	36	48	117	1	14	10	270
GABON	2	2	3	4	8	11	(*)	2	1	28
KENYA	10	10	8	9	12	9	1	20	2	64
LIBYA	10	10	18	31	32	45	0	12	5	135
MOROCCO	8	8	5	7	25	32	1	11	4	88
NIGERIA	56	56	17	18	35	22	1	1	5	138
SOUTH AFRICA	86	86	8	17	94	64	7	18	11	296
TUNISIA	3	3	3	5	8	11	0	1	1	30
ZAMBIA	3	3	1	2	6	3	0	(*)	1	15
OTHER	36	36	13	22	50	60	1	5	9	182
TOTAL	**286**	**286**	**90**	**162**	**394**	**433**	**14**	**142**	**61**	**1,491**
FAR EAST AND OCEANIA										
AUSTRALIA	251	253	38	41	149	71	11	48	39	613
CHINA	278	305	24	414	531	606	0	9	13	1,879
INDIA	34	34	22	72	166	111	8	84	30	504
INDONESIA	47	48	(*)	71	52	160	1	8	13	354
JAPAN	588	588	79	489	419	1,855	41	854	181	4,428
NORTH KOREA	14	14	0	3	12	5	0	0	3	37
SOUTH KOREA	19	19	13	37	104	247	4	73	14	500
MALAYSIA	11	11	3	7	38	41	0	6	2	105
NEW ZEALAND	30	30	0	0	12	17	0	2	2	64
PAKISTAN	10	10	12	16	23	26	2	7	7	90
PHILIPPINES	32	32	6	16	47	75	0	9	9	188
SINGAPORE	52	52	90	146	173	222	12	83	28	717
TAIWAN	36	36	(*)	17	61	175	10	54	18	370
THAILAND	31	31	13	18	48	43	0	6	8	155
OTHER	10	10	20	32	27	35	(*)	6	5	116
TOTAL	**1,444**	**1,473**	**321**	**1,379**	**1,864**	**3,691**	**90**	**1,251**	**373**	**10,120**
WORLD TOTAL	**14,985**	**15,081**	**2,358**	**5,036**	**14,415**	**16,298**	**876**	**8,319**	**2,975**	**62,995**

[a]Includes other finished petroleum products and unfinished oils requiring further processing such as asphalt, liquefied petroleum gases, naphtha, paraffin wax, petrochemical feedstocks, petroleum coke, unfinished oils, white spirit, and miscellaneous products.

[b]Fuels produced and subsequently consumed in refineries are included with refinery fuels rather than particular products.

[c]Refinery product output categories for the United States include fuels produced that are subsequently consumed as refinery fuel.

NA indicates not available.

*Denotes less than one-half the unit of measure.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

Table 16. WORLD IMPORTS OF REFINED PETROLEUM PRODUCTS, 1980

(Thousand Barrels per Day)

REGION AND COUNTRY	GASOLINE		KEROSENE AND JET FUEL						
	Motor Gasoline	Total (Including Aviation Gasoline)	Jet Fuel (As Reported)	Total	Distillate Fuel Oil	Residual Fuel Oil	Lubricants (Including Greases)	Other[a]	Total Imports of Refined Petroleum Products
NORTH AMERICA									
UNITED STATES	140	140	80	90	142	939	7	329	1,646
OTHER	4	4	5	7	8	20	7	25	70
TOTAL	**143**	**144**	**85**	**96**	**150**	**959**	**14**	**354**	**1,716**
CENTRAL AND SOUTH AMERICA									
ARGENTINA	5	5	0	2	(*)	0	(*)	10	17
CUBA	5	5	0	0	15	41	2	0	63
NETHERLANDS ANTILLES	6	6	4	4	3	24	1	1	39
PANAMA REPUBLIC	(*)	(*)	0	0	12	30	0	1	44
OTHER	50	54	11	14	64	101	6	119	358
TOTAL	**66**	**70**	**15**	**20**	**95**	**195**	**9**	**131**	**521**
WESTERN EUROPE									
AUSTRIA	20	20	(*)	(*)	8	19	2	8	58
BELGIUM	25	25	2	2	57	97	9	30	220
DENMARK	19	19	17	19	72	47	14	7	178
FRANCE	15	16	2	8	71	127	4	142	367
GERMANY, WEST	87	89	40	41	354	84	7	257	830
ITALY	4	4	2	4	68	249	4	77	405
LUXEMBOURG	0	0	0	0	0	0	0	0	0
NETHERLANDS	17	17	6	6	70	99	6	180	378
NORWAY	10	10	2	7	25	2	2	9	55
SPAIN	4	5	1	1	7	10	(*)	64	87
SWEDEN	53	53	5	11	87	94	6	23	275
SWITZERLAND	40	40	11	12	107	9	2	42	210
TURKEY	0	0	0	0	23	27	1	11	62
UNITED KINGDOM	62	63	9	9	29	51	6	39	196
OTHER	37	38	36	37	111	104	7	32	329
TOTAL	**394**	**397**	**131**	**157**	**1,088**	**1,018**	**68**	**921**	**3,650**
EASTERN EUROPE AND U.S.S.R.									
BULGARIA	0	0	0	(*)	12	25	0	(*)	38
POLAND	20	20	0	1	37	7	3	25	91
OTHER	26	26	(*)	10	33	5	2	4	80
TOTAL	**46**	**46**	**(*)**	**11**	**82**	**37**	**4**	**28**	**209**
MIDDLE EAST									
UNITED ARAB EMIRATES	7	7	8	8	26	1	(*)	0	42
OTHER	17	18	36	41	45	35	5	3	146
TOTAL	**24**	**25**	**44**	**48**	**71**	**36**	**6**	**3**	**188**
AFRICA									
LIBYA	8	8	0	0	3	0	1	23	35
NIGERIA	5	6	9	10	4	0	0	(*)	20
OTHER	37	40	24	38	78	56	9	46	261
TOTAL	**50**	**53**	**33**	**48**	**85**	**56**	**10**	**69**	**316**
FAR EAST AND OCEANIA									
AUSTRALIA	8	9	3	4	12	44	1	5	74
HONG KONG	5	5	13	18	23	76	1	5	128
INDIA	0	0	1	42	67	20	3	7	138
INDONESIA	18	18	9	72	78	12	2	(*)	182
JAPAN	0	0	1	2	20	128	3	531	683
MALAYSIA	2	2	1	3	15	5	3	5	34
PHILIPPINES	(*)	1	(*)	(*)	36	0	(*)	2	40
SINGAPORE	1	2	1	3	5	54	(*)	8	72
TAIWAN	0	0	0	0	51	0	2	11	63
THAILAND	7	7	3	3	26	23	1	5	66
OTHER	43	45	23	44	77	61	1	7	235
TOTAL	**85**	**89**	**55**	**191**	**410**	**423**	**16**	**586**	**1,716**
WORLD TOTAL	**809**	**825**	**368**	**568**	**1,981**	**2,724**	**127**	**2,092**	**8,316**

[a]Includes other finished petroleum products and unfinished oils requiring further processing such as asphalt, liquefied petroleum gases, naphtha, paraffin wax, petrochemical feedstocks, petroleum coke, unfinished oils, white spirit, and miscellaneous products.

*Denotes less than one-half the unit of measure.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

WORLD IMPORTS OF REFINED PETROLEUM PRODUCTS, 1980

(Thousand Barrels per Day)

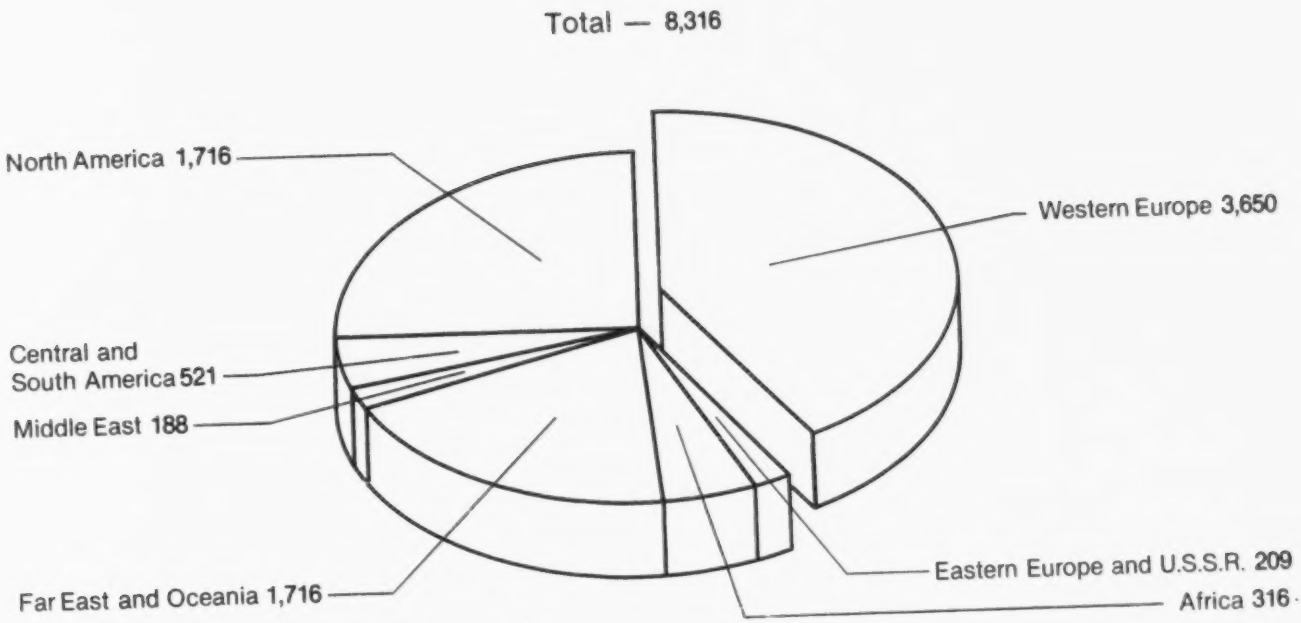


Table 17. WORLD EXPORTS AND BUNKERS OF REFINED PETROLEUM PRODUCTS, 1980 (Thousand Barrels per Day)

REGION AND COUNTRY	GASOLINE		KEROSENE AND JET FUEL							Bunkers All Flags	
	Motor Gasoline	Total (Including Aviation Gasoline)	Jet Fuel (As Reported)	Total	Distillate Fuel Oil	Residual Fuel Oil	Lubricants (Including Greases)	Other[a]	Total Exports of Refined Products	Residual Fuel Oil[b]	Distillate Fuel Oil and Other Products
NORTH AMERICA											
CANADA	12	12	3	4	36	46	(*)	29	127	24	4
MEXICO	0	0	0 (*)		1	29	(*)	16	46	1	1
UNITED STATES	1	1	1	1	3	33	23	195	258	485	47
OTHER	0	0	0	0		0	0	0	0	0	3
TOTAL	**13**	**13**	**5**	**6**	**40**	**109**	**24**	**239**	**431**	**509**	**55**
CENTRAL AND SOUTH AMERICA											
BAHAMA ISLANDS	0	0	22	22	26	82	0	25	155	12	3
NETHERLANDS ANTILLES	71	76	40	41	65	281	12	13	489	39	5
PUERTO RICO	30	30	1	1	21	5	1	5	63	3	(*)
TRINIDAD AND TOBAGO	23	24	6	8	30	110	2	2	175	13	4
VENEZUELA	25	25	13	14	72	410	4	11	536	13	1
VIRGIN ISLANDS	69	69	19	29	91	174	0	23	385	17	1
OTHER	16	17	6	6	24	95	1	12	145	59	46
TOTAL	**234**	**239**	**106**	**120**	**330**	**1,147**	**20**	**90**	**1,947**	**156**	**61**
WESTERN EUROPE											
BELGIUM	79	79	31	32	88	103	7	50	358	33	16
LUXEMBOURG	10	10	0 (*)		19	4	1	2	36	5	15
DENMARK	41	41	28	31	81	109	15	56	333	37	24
FRANCE	25	25	7	7	31	33	6	49	151	44	36
GERMANY, WEST	18	18	33	33	51	30	2	21	155	12	18
GREECE	38	38	57	59	57	36	11	15	246	37	33
ITALY	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	109	109	61	65	274	231	12	117	808	129	26
SWEDEN	18	18	0	1	23	48	1	1	93	13	3
UNITED KINGDOM	20	21	14	16	97	93	13	60	299	31	79
OTHER	34	34	8	8	38	43	6	34	162	16	49
TOTAL	**392**	**394**	**239**	**282**	**758**	**730**	**73**	**406**	**2,642**	**357**	**298**
EASTERN EUROPE AND U.S.S.R.											
ROMANIA	63	63	0	8	54	62	6	2	194	0	0
U.S.S.R.	186	186	0	64	428	218	5	25	[c]926	82	0
OTHER	21	21	(*)	1	52	27	2	8	[c]110	1	0
TOTAL	**269**	**269**	**(*)**	**73**	**534**	**307**	**13**	**34**	**1,230**	**83**	**0**
MIDDLE EAST											
BAHRAIN	22	22	27	29	63	73	(*)	37	225	6	3
IRAN	27	30	0	4	0	55	(*)	17	106	24	(*)
KUWAIT	1	1	3	34	66	111	0	40	251	35	1
SAUDI ARABIA	0	0	0	31	34	85	2	385	538	84	2
OTHER	12	12	3	9	12	25	(*)	13	71	15	14
TOTAL	**61**	**64**	**34**	**107**	**175**	**349**	**3**	**493**	**1,190**	**165**	**20**
AFRICA											
ALGERIA	5	5	5	5	37	48	0	56	151	(*)	2
LIBYA	0	0	9	18	3	32	0	32	85	1	2
OTHER	14	14	7	9	23	69	2	12	129	64	78
TOTAL	**19**	**19**	**21**	**31**	**64**	**149**	**2**	**100**	**365**	**65**	**82**
FAR EAST AND OCEANIA											
AUSTRALIA	5	5	3	6	12	6	4	50	84	30	11
INDONESIA	(*)	(*)	0 (*)		(*)	132	1	2	135	3	4
SINGAPORE	46	47	72	108	152	178	11	71	567	59	21
OTHER	17	17	12	25	26	43	8	16	135	180	113
TOTAL	**68**	**69**	**87**	**139**	**190**	**359**	**24**	**139**	**920**	**271**	**149**
WORLD TOTAL	**1,056**	**1,067**	**492**	**757**	**2,091**	**3,149**	**159**	**1,502**	**8,725**	**1,605**	**666**

[a]Includes other finished petroleum products and unfinished oils requiring further processing such as asphalt, liquefied petroleum gases, naphtha, paraffin wax, petrochemical feedstocks, petroleum coke, unfinished oils, white spirit, and miscellaneous products.

[b]Detailed breakout of bunkers between residual and other products is not available in some instances. In those cases, the total bunkers are listed in the "Residual Fuel Oil" column with "NA" in the "Distillate Fuel Oil and Other Products" column.

[c]Estimated.

*Denotes less than one-half the unit of measure.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

WORLD EXPORTS OF REFINED PETROLEUM PRODUCTS, 1980
(Thousand Barrels per Day)

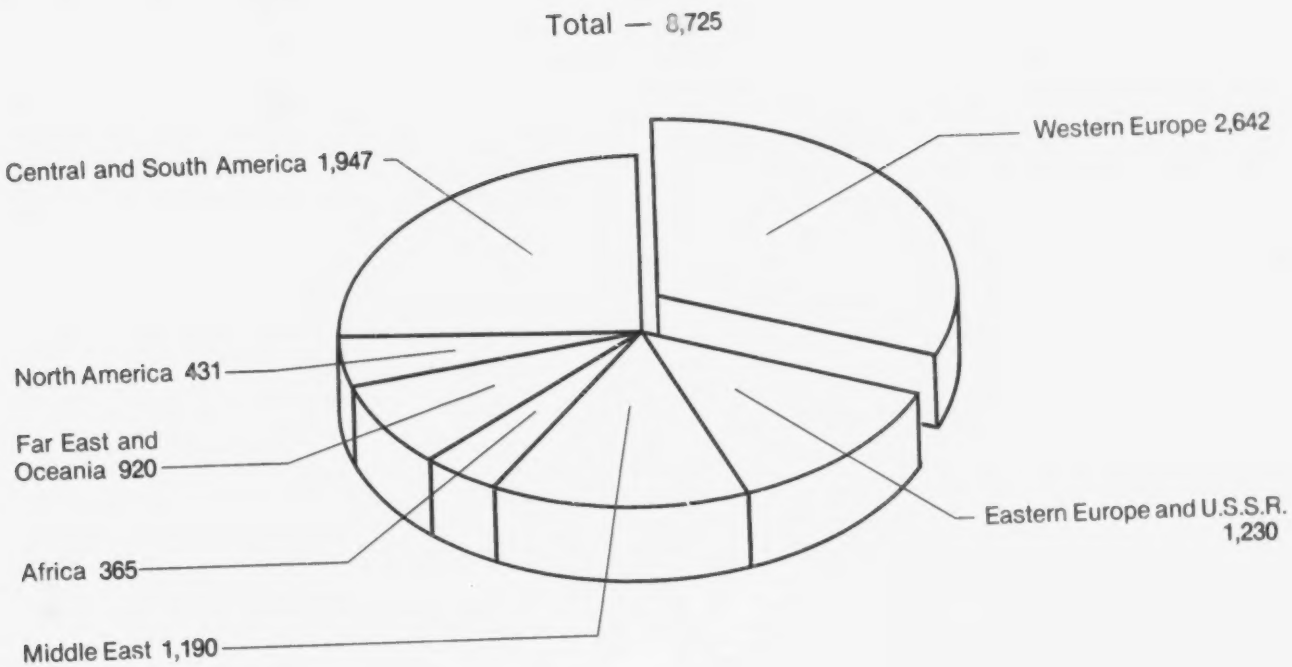


Table 18. WORLD APPARENT CONSUMPTION OF REFINED PETROLEUM PRODUCTS, 1980[a] (Thousand Barrels per Day)

Region and Country	Gasoline (total including motor and aviation)	Kerosene and Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Lubricants (including grease)	Other Refined Products[b]	Refinery Fuel and Loss	Total Apparent Consumption
NORTH AMERICA								
CANADA	665	105	497	290	18	272	99	1,947
MEXICO	329	68	245	280	20	233	46	1,222
UNITED STATES	6,613	1,226	2,866	2,509	159	3,683	0	17,056
OTHER	1	4	6	1	(*)	1	0	12
TOTAL	**7,609**	**1,404**	**3,613**	**3,080**	**198**	**4,189**	**145**	**20,237**
CENTRAL AND SOUTH AMERICA								
ARGENTINA	131	32	150	118	6	39	22	499
BAHAMA ISLANDS	3	2	10	24	(*)	2	5	46
BRAZIL	239	56	326	323	14	183	22	1,164
CHILE	25	11	25	28	0	15	4	107
COLOMBIA	75	20	26	17	1	29	15	184
CUBA	25	9	38	100	5	12	6	196
ECUADOR	10	10	19	19	1	2	3	84
NETHERLANDS ANTILLES	3	1	13	97	1	10	12	137
PANAMA REPUBLIC	5	3	22	44	0	4	2	78
PERU	26	27	29	40	(*)	5	2	129
PUERTO RICO	45	10	16	58	5	147	18	299
TRINIDAD AND TOBAGO	19	10	9	8	1	5	9	61
VENEZUELA	133	18	66	67	4	26	23	337
VIRGIN ISLANDS	7	7	19	23	(*)	43	19	117
OTHER	55	26	82	115	2	22	7	309
TOTAL	**821**	**243**	**849**	**1,082**	**40**	**544**	**169**	**3,747**
WESTERN EUROPE								
AUSTRIA	57	3	55	90	4	21	2	232
BELGIUM	74	8	190	179	3	53	35	543
DENMARK	35	31	112	85	13	7	8	290
FINLAND	30	5	106	84	2	31	13	271
FRANCE	413	72	775	500	19	323	154	2,256
GERMANY, WEST	552	91	1,114	413	23	361	164	2,707
GREECE	33	19	74	109	2	13	11	262
IRELAND	24	7	27	47	1	12	1	119
ITALY	290	51	493	623	12	272	136	1,876
NETHERLANDS	91	10	141	250	4	169	60	727
NORWAY	34	21	81	29	2	25	9	200
PORTUGAL	17	7	37	57	2	24	9	154
SPAIN	131	39	215	382	6	182	35	990
SWEDEN	82	13	174	203	(*)	34	22	527
SWITZERLAND	65	17	147	23	2	50	3	307
TURKEY	41	13	82	130	3	38	7	314
UNITED KINGDOM	446	147	439	380	17	167	110	1,725
YUGOSLAVIA	50	7	72	133	9	23	6	301
OTHER	3	3	9	10	(*)	(*)	0	25
TOTAL	**2,469**	**558**	**4,383**	**3,726**	**124**	**1,805**	**805**	**13,826**

Table 18. WORLD APPARENT CONSUMPTION OF REFINED PETROLEUM PRODUCTS, 1980[a] (Continued) (Thousand Barrels per Day)

Region and Country	Gasoline (total including motor and aviation)	Kerosene and Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Lubricants (including grease)	Other Refined Products[b]	Refinery Fuel and Loss	Total Apparent Consumption
EASTERN EUROPE AND U.S.S.R.								
BULGARIA	43	5	94	133	2	11	29	306
CZECHOSLOVAKIA	40	12	93	174	8	25	40	391
GERMANY, EAST	68	11	100	150	8	25	27	388
HUNGARY	33	5	91	51	3	38	23	244
POLAND	91	6	119	74	13	61	23	387
ROMANIA	48	11	99	124	7	37	49	374
U.S.S.R.	1,530	702	1,918	2,493	205	932	1,134	8,914
OTHER	4	1	6	9	(*)	20	5	46
TOTAL	1,857	753	2,510	3,207	246	1,149	1,328	11,050
MIDDLE EAST								
IRAN	69	134	136	168	4	46	13	570
IRAQ	34	26	46	50	2	39	20	217
ISRAEL	20	16	24	81	1	16	11	170
KUWAIT	21	8	12	35	0	10	20	106
LEBANON	7	7	7	16	(*)	1	2	40
SAUDI ARABIA	87	35	90	242	1	28	18	500
SYRIA	23	12	61	36	(*)	3	2	138
UNITED ARAB EMIRATES	11	8	12	4	(*)	(*)	1	55
OTHER	29	30	39	38	1	7	8	153
TOTAL	302	277	446	670	9	150	95	1,949
AFRICA								
ALGERIA	24	7	37	6	3	25	9	111
EGYPT	43	36	48	98	1	15	10	247
MOROCCO	8	7	26	32	1	11	4	89
NIGERIA	61	28	37	15	1	1	5	148
SOUTH AFRICA	86	17	92	82	7	18	11	312
OTHER	96	96	176	111	9	50	20	548
TOTAL	317	182	412	344	23	118	61	1,457
FAR EAST AND OCEANIA								
AUSTRALIA	255	40	132	77	8	43	39	594
CHINA	292	407	511	600	1	10	13	1,834
HONG KONG	4	18	22	74	1	4	0	124
INDIA	75	111	231	132	11	93	30	643
INDONESIA	65	146	131	43	2	7	13	408
JAPAN	595	695	744	1,875	38	1,041	181	4,960
KOREA, SOUTH	19	38	104	280	4	77	14	537
MALAYSIA	13	9	53	46	2	9	2	134
NEW ZEALAND	40	7	21	17	0	3	2	91
PAKISTAN	13	21	42	11	1	(*)	7	94
PHILIPPINES	31	16	83	75	(*)	11	9	225
SINGAPORE	7	41	26	98	1	16	28	218
TAIWAN	36	14	110	165	10	64	19	415
THAILAND	39	21	75	68	1	12	8	224
OTHER	56	48	87	62	1	5	8	265
TOTAL	1,501	1,424	2,371	3,622	81	1,395	373	10,766
WORLD TOTAL	14,875	8,835	14,545	15,731	721	9,351	2,975	63,033

[a]Data represents apparent consumption which includes inland consumption, refinery fuel and loss, and bunkering. Apparent consumption is either an actual figure or is derived from the components of refined product output, plus imports, minus exports with no allowance for stock changes. Fuel produced and subsequently consumed in refineries are included with refinery fuels rather than particular products. Also includes, where available, liquefied petroleum gases sold directly for fuel and chemical uses from natural gas processing plants.

[b]Includes other finished products and unfinished oils requiring further processing. These include asphalt, coke, liquefied petroleum gases, naphthas, paraffin wax, petrochemical feed stocks, unfinished oils, white spirit, etc.

(*) denotes less than one-half the unit of measure.

Note: Sum of components may not equal total due to independent rounding.

Source: Refer to Appendix A.

Table 19. OECD[a] PETROLEUM STOCKS, 1978-1981

(Million Barrels)

Year and Quarter	Canada[b]	France	Germany, West	Italy	Japan[c]	United Kingdom[d]	United States[e]	Other OECD[f]	Total OECD
CRUDE OIL STOCKS									
1978 Q1	38	59	100	41	215	58	364	104	979
Q2	41	63	107	41	227	65	363	129	1,036
Q3	36	53	109	45	218	57	368	126	1,012
Q4	33	58	114	42	223	62	376	122	1,030
1979 Q1	37	52	115	34	218	59	399	105	1,018
Q2	39	68	120	39	222	66	414	127	1,095
Q3	34	64	130	39	220	68	415	140	1,110
Q4	37	66	128	46	247	69	430	138	1,161
1980 Q1	37	78	131	43	241	70	459	141	1,200
Q2	42	77	136	44	265	78	473	154	1,269
Q3	45	76	141	51	277	78	469	171	1,308
Q4	43	71	152	40	277	77	466	165	1,291
1981 Q1	38	70	151	43	255	77	514	164	1,312
Q2	45	79	158	41	287	75	548	188	1,421
Q3	44	74	147	41	291	67	555	172	1,391
Q4	42	67	142	36	293	65	594	174	1,413
PRODUCT STOCKS									
1978 Q1	105	141	107	92	105	93	681	268	1,592
Q2	103	129	101	99	123	89	701	283	1,628
Q3	109	165	112	111	139	97	780	335	1,848
Q4	103	146	115	105	145	85	785	318	1,802
1979 Q1	92	136	107	99	105	82	629	290	1,540
Q2	97	135	115	104	113	85	676	309	1,634
Q3	107	169	129	121	153	95	767	373	1,914
Q4	108	165	134	111	150	94	779	384	1,925
1980 Q1	110	153	161	105	128	93	758	402	1,910
Q2	115	152	170	117	144	95	788	417	1,998
Q3	120	184	159	137	163	94	828	445	2,130
Q4	113	174	166	124	150	92	786	431	2,036
1981 Q1	114	152	165	109	130	87	694	402	1,853
Q2	116	140	153	124	141	83	695	402	1,854
Q3	119	162	160	140	145	83	740	404	1,953
Q4	109	149	154	124	112	79	713	397	1,837
TOTAL PETROLEUM STOCKS[g]									
1978 Q1	150	200	216	137	379	158	1,168	418	2,826
Q2	154	192	218	144	407	147	1,185	460	2,907
Q3	159	219	231	160	410	162	1,263	461	3,065
Q4	148	214	239	153	422	147	1,278	487	3,089
1979 Q1	139	189	233	137	378	141	1,142	439	2,797
Q2	149	204	247	148	391	151	1,210	470	2,974
Q3	155	234	270	166	440	164	1,309	552	3,289
Q4	156	231	273	163	457	163	1,341	574	3,358
1980 Q1	156	233	299	152	427	163	1,348	561	3,339
Q2	171	239	313	165	471	174	1,410	584	3,527
Q3	183	264	306	192	508	173	1,447	620	3,693
Q4	171	254	323	173	481	169	1,392	600	3,563
1981 Q1	165	227	317	158	452	163	1,401	587	3,471
Q2	179	225	312	171	484	158	1,430	607	3,566
Q3	181	241	307	187	493	151	1,476	591	3,627
Q4	164	222	297	167	466	145	1,484	592	3,537

[a]Organization for Economic Cooperation and Development. The members of OECD are Australia, Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

[b]Crude oil stocks for Canada include pentanes plus and condensates but exclude pipeline fill.

[c]Total petroleum stocks for Japan include government-owned reserves.

[d]Crude oil stocks for the United Kingdom include unfinished oils beginning in 1978.

[e]Stocks for the United States include data for the 50 States and District of Columbia. Data include lease condensate, pipeline and tank farm stocks, stocks held at refineries, bulk terminals, and the Strategic Petroleum Reserve. Also, includes liquefied gases in product oil stocks.

[f]Includes OECD member nations not shown above.

[g]Includes natural gas liquids and unfinished oils in addition to crude oil and product stocks unless otherwise noted.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

OECD PETROLEUM STOCKS, 1978-1981

(Million Barrels)

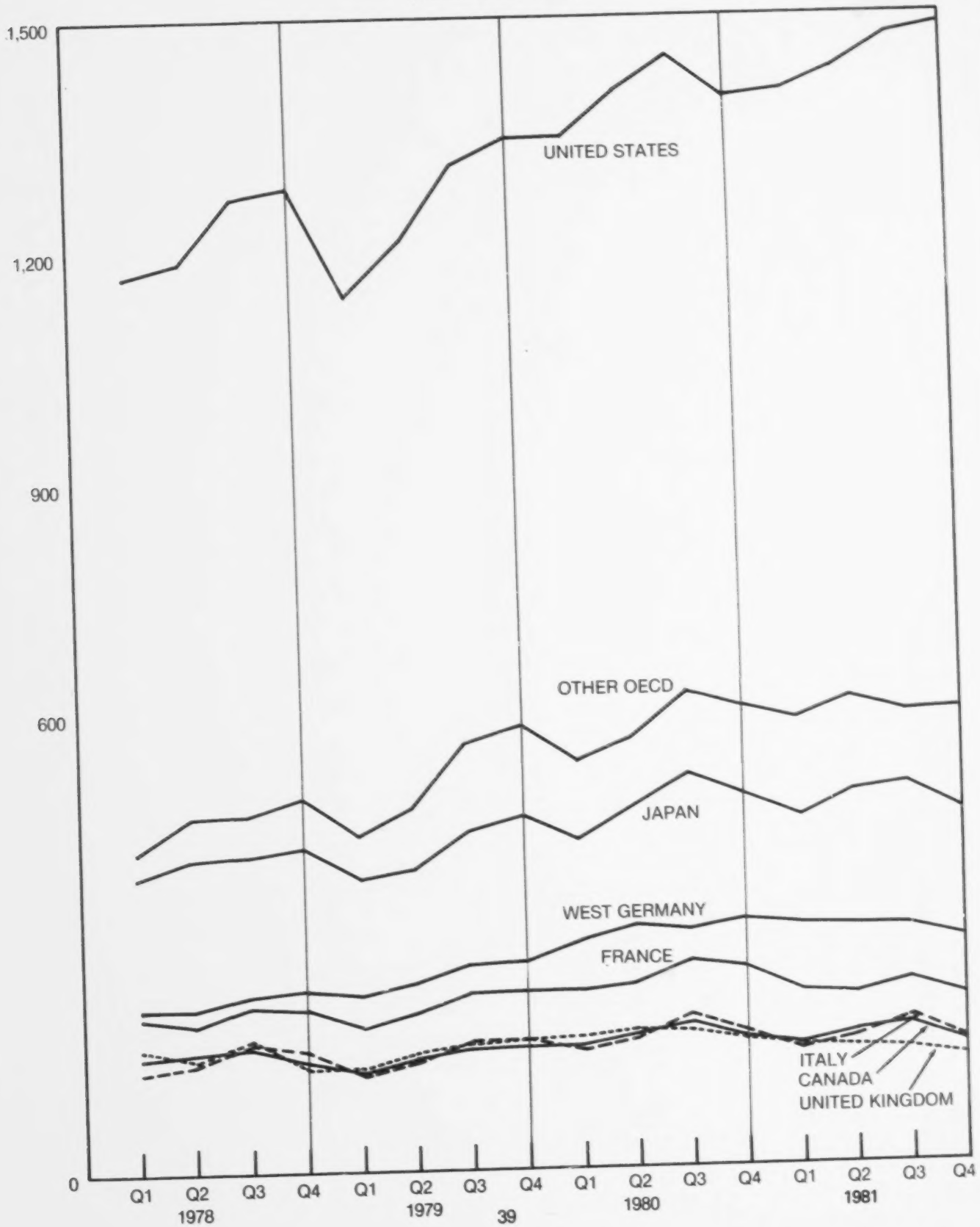


Table 20. INTERNATIONAL CRUDE OIL FLOW, 1980

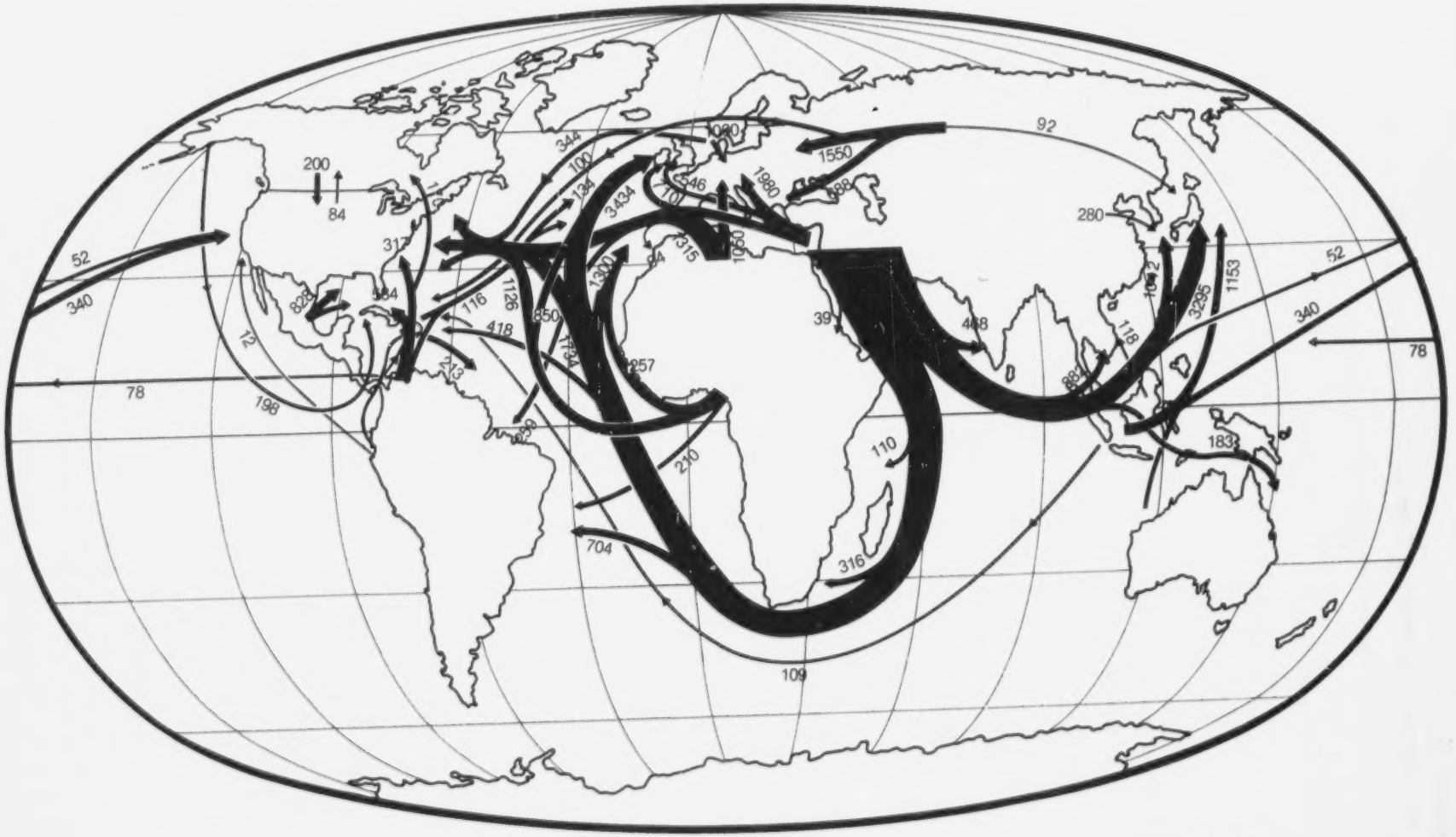
(Thousand Barrels per Day)

EXPORTING COUNTRY OR REGION	IMPORTING COUNTRY OR REGION										
	North America		Central and South America		Western Europe		Eastern Europe	Middle East and Africa	Far East and Oceania		Total[c]
	United States	Canada	Caribbean Area	Other	Atlantic Ocean and North Sea	Mediterranean Sea			Japan	Other	
NORTH AMERICA											
CANADA	200	--	--	--	--	--	--	--	--	--	200
MEXICO	507	--	140	34	147	--	--	--	--	--	828
UNITED STATES	--	84	[a]198	--	--	--	--	--	--	[b]6	287
CENTRAL AND SOUTH AMERICA											
ECUADOR	17	1	52	18	--	3	--	--	21	--	112
PERU	40	--	10	7	--	--	--	--	--	--	57
TRINIDAD	115	3	18	--	--	--	--	--	--	--	136
VENEZUELA	156	166	501	188	124	113	--	--	46	2	1,296
OTHER	4	--	3	--	10	--	--	--	--	30	47
WESTERN EUROPE											
NORWAY	144	--	--	--	332	--	--	--	--	--	476
UNITED KINGDOM	173	7	20	--	593	3	--	1	--	--	798
OTHER	--	--	--	--	75	--	--	--	--	--	75
U.S.S.R.	--	--	100	--	348	310	1,550	30	2	90	2,430
MIDDLE EAST											
VIA SUEZ CANAL AND SUMED PIPELINE	--	--	--	--	488	1,280	--	60	--	--	1,828
VIA EASTERN MEDITERRANEAN	2	20	--	--	58	680	20	55	--	--	835
VIA CAPE OF GOOD HOPE	1,487	247	418	704	3,274	1,180	280	--	--	--	7,590
OTHER	44	8	--	--	--	30	--	960	3,125	2,248	6,415
TOTAL	1,533	275	418	704	3,820	3,170	300	1,075	3,125	2,248	16,669
AFRICA											
NORTH	1,042	14	245	14	710	890	160	39	45	59	3,218
WEST	956	3	167	210	850	232	25	70	22	--	2,535
FAR EAST AND OCEANIA	376	--	43	30	10	23	--	25	1,153	425	2,085
WORLD TOTAL	**5,263**	**554**	**1,915**	**1,205**	**7,019**	**4,744**	**2,036**	**1,240**	**4,414**	**2,860**	**31,249**

[a]Includes shipments to Puerto Rico and the Virgin Islands.
[b]Shipments to Hawaiian Foreign Trade Zone.
[c]The data in this column do not equal total reported exports because of changes in stocks at sea, exchanges, transshipments, and other statistical discrepancies.
--Indicates data not applicable.
Note: Sum of components may not equal total due to independent rounding.

INTERNATIONAL CRUDE OIL FLOW, 1980

(Thousand Barrels per Day)



Arrows Indicate Origin and Destination
But Not Necessarily Specific Routes

U.S. Department of Energy
Energy Information Administration

Table 21. WORLD REFINING CAPACITY, JANUARY 1, 1982

(Thousand Barrels per Calendar Day)

REGION AND COUNTRY	NUMBER OF REFINERIES	CRUDE OIL	CATALYTIC CRACKING	THERMAL CRACKING	REFORMING
NORTH AMERICA					
CANADA	36	2,200	510	61	433
MEXICO	10	1,470	297	82	142
UNITED STATES	301	17,890	760	[a]1,660	3,780
TOTAL	**347**	**21,560**	**5,567**	**1,803**	**4,355**
CENTRAL AND SOUTH AMERICA					
ARGENTINA	12	677	96	53	37
BAHAMA ISLANDS	1	500	NA	NA	NA
BRAZIL	13	1,407	277	17	22
NETHERLANDS ANTILLES	2	782	42	260	15
TRINIDAD AND TOBAGO	2	456	25	NA	27
VENEZUELA	8	1,323	114	75	7
VIRGIN ISLANDS	1	640	NA	NA	70
OTHER	37	1,267	194	88	150
TOTAL	**76**	**7,052**	**748**	**493**	**328**
WESTERN EUROPE					
BELGIUM	8	1,035	91	43	123
FINLAND	2	299	38	46	48
FRANCE	22	3,291	220	111	438
GERMANY, WEST	31	2,937	191	395	445
GREECE	4	427	18	11	30
ITALY	32	4,003	257	150	406
NETHERLANDS	8	1,708	111	149	212
PORTUGAL	3	365	11	NA	54
SPAIN	10	1,517	NA	15	195
SWEDEN	6	471	NA	33	84
TURKEY	4	367	41	NA	29
UNITED KINGDOM	17	2,482	256	202	436
OTHER	12	911	29	183	124
TOTAL	**159**	**19,813**	**1,263**	**1,338**	**2,624**
EASTERN EUROPE AND U.S.S.R.					
U.S.S.R.	37	11,600	NA	NA	NA
OTHER[b]	45	3,123	NA	NA	NA
TOTAL	**82**	**14,723**	**NA**	**NA**	**NA**
MIDDLE EAST					
KUWAIT	5	623	NA	NA	19
SAUDI ARABIA	3	487	NA	3	45
OTHER	23	1,834	56	186	179
TOTAL	**31**	**2,944**	**56**	**189**	**243**
AFRICA					
SOUTH AFRICA	4	424	83	67	62
OTHER	36	1,339	50	7	158
TOTAL	**40**	**1,763**	**133**	**74**	**220**
FAR EAST AND OCEANIA					
AUSTRALIA	11	742	165	NA	175
CHINA	20	1,810	NA	NA	NA
INDIA	9	557	55	55	15
INDONESIA	9	498	38	10	33
JAPAN	46	5,601	422	79	585
SOUTH KOREA	6	755	NA	13	37
SINGAPORE	5	1,096	9	105	30
TAIWAN	2	515	9	6	52
OTHER	21	1,203	32	19	122
TOTAL	**129**	**12,777**	**730**	**287**	**1,049**
WORLD TOTAL	**864**	**80,632**	**8,497**	**4,184**	**8,819**

[a]Includes thermal cracking, visbreaking, and coking.

[b]Includes Albania, Bulgaria, Cuba, Czechoslovakia, East Germany, Hungary, Mongolia, North Korea, Poland, Romania, Vietnam, and Yugoslavia.

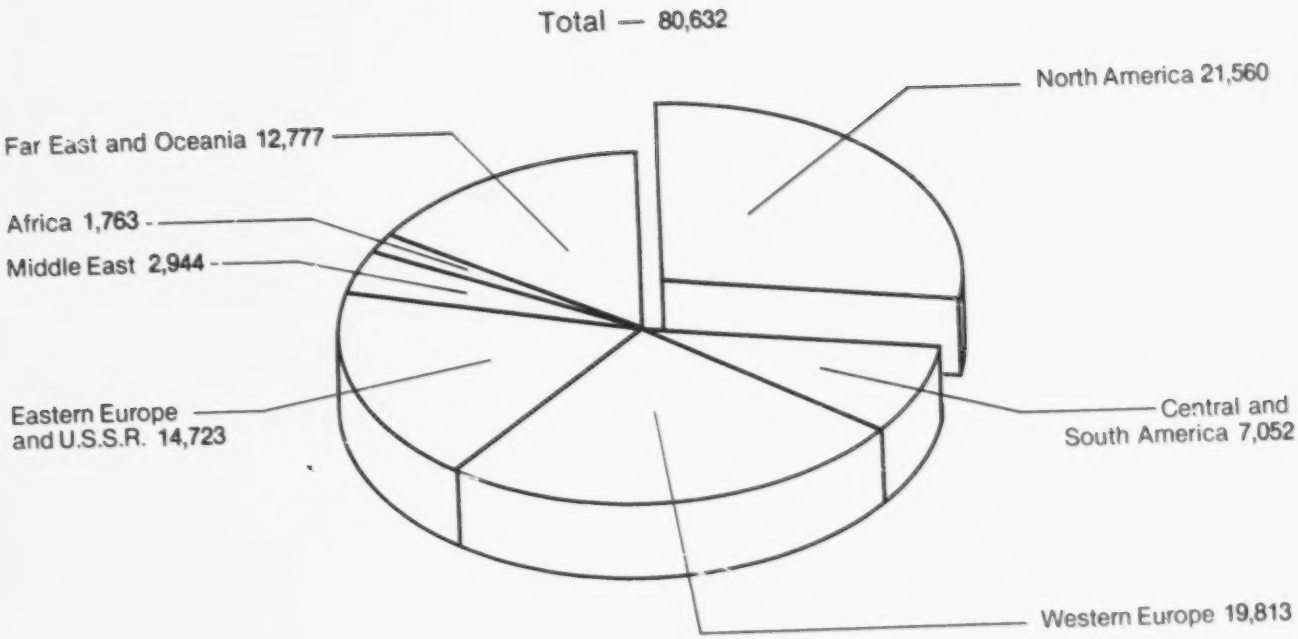
NA = Not Available.

Note: Sum of components may not equal total due to independent rounding.

Source: *Oil and Gas Journal*, December 28, 1981, pp. 86-87. United States: *Petroleum Supply Annual* 1981. Volume 1; July 1982 Energy Information Administration.

WORLD CRUDE OIL REFINING CAPACITY, JANUARY 1, 1982

(Thousand Barrels per Day)



4

International Petroleum Prices

Table 22. CRUDE OIL SELLING PRICES

(U.S. Dollars per Barrel, January 1)

Area Country Crude Type (API Gravity)	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
NORTH AMERICA										
Mexico										
Isthmus (34)	[a]	[a]	[a]	12.10	13.35	13.40	14.10	32.00	38.50	35.00
Canada										
Canadian Heavy (22)[b]	[a]	[a]	[a]	[a]	[a]	[a]	14.25	26.60	34.09	28.74
CENTRAL AND SOUTH AMERICA										
Venezuela										
Tia Juana (26)	E2.63	E10.13	E10.59	11.12	12.72	12.82	13.36	25.20	32.88	32.88
Ecuador										
Oriente (30)	E2.14	E11.29	11.45	11.45	13.00	12.65	13.03	E33.50	40.06	34.25
WESTERN EUROPE										
United Kingdom										
Forties (37)	[a]	[a]	[a]	[a]	14.10	13.65	15.50	29.75	39.25	36.50
Norway										
Ekofisk (40)	[a]	[a]	[a]	[a]	14.33	14.20	15.10	32.50	40.00	37.25
MIDDLE EAST										
Saudi Arabia										
Arabian Light (34)	E2.41	E10.84	10.46	11.51	12.09	12.70	13.34	26.00	32.00	34.00
Iran										
Iranian Light (34)	E2.40	E11.04	10.67	11.62	12.81	12.81	13.45	30.37	37.00	34.20
Kuwait										
Kuwait Blend (31)	E2.31	E10.74	10.37	11.30	12.37	12.27	12.83	27.50	35.50	32.30
Abu Dhabi										
Murban (39)	E2.47	E11.75	10.87	11.92	12.50	13.26	14.10	29.56	36.56	35.50
Iraq										
Basrah Light (35)	E2.38	E10.85	10.48	11.53	12.58	12.58	13.21	27.96	35.96	34.93
AFRICA										
Algeria										
Saharan (44)	E3.30	14.00	12.00	12.85	14.30	14.25	14.81	30.00	40.00	37.00
Libya										
Es Sider (37)	E2.87	E11.98	E11.10	12.21	13.74	13.80	14.52	34.50	40.78	36.50
Nigeria										
Bonny (37)	E3.31	E13.66	E10.85	12.70	14.31	14.31	14.80	29.97	40.00	36.50
FAR EAST AND OCEANIA										
Indonesia										
Minas (34)	3.73	10.80	12.60	12.80	13.55	13.55	13.90	27.50	35.00	35.00

[a]No significant volume of exports.
[b]FOB equivalent.
E = Estimated.
Sources: Refer to Appendix A.

Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES

(U.S. Dollars)

Region and Country/Product	July 1981			January 1982		
		Includes			Includes	
	Consumer Price	Tax[1]	Customs Duty[2]	Consumer Price	Tax[1]	Customs Duty[2]
NORTH AMERICA						
CANADA, OTTAWA Dollars/U.S. Dollar		1.20			1.19	
(Price Per Gallon)						
Premium Gasoline 94/98 RON	1.26	.34		x	x	
Regular Gasoline 91/94 RON	1.16	.31		x	x	
Auto Diesel Fuel	1.21	.32		x	x	
Household Kerosene	.81	0		x	x	
Light Heating Oil	x	x		x	x	
LPG	x	x		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		x	x	
Marine Diesel Fuel	x	x		x	x	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil	x	x		x	x	
Marine Fuel Oil	x	x		x	x	
MEXICO, MEXICO CITY Pesos/U.S. Dollar		24.00			26.10	
(Price Per Gallon)						
Premium Gasoline 92 RON	1.10	.67		1.45	1.06	
Regular Gasoline 81 RON	.44	.15		.87	.60	
Auto Diesel Fuel	.16	0		.36	.03	
Household Kerosene	.24	.02		.22	.02	
Light Heating Oil	.08	.01		.09	.01	
LPG	.27	0		.30	0	
(Price Per Barrel)						
Distillate Fuel Oil	6.62	0		15.23	1.40	
Marine Diesel Fuel	6.62	0		15.23	1.40	
Medium Fuel Oil	3.47	.35		4.93	0.49	
Heavy Fuel Oil	2.99	.30		3.19	0.32	
Marine Fuel Oil	2.99	.26		3.19	0.32	
UNITED STATES, NATIONAL AVERAGE FOR THE MONTH U.S. Dollar						
(Price Per Gallon)						
Premium Gasoline 95/98 RON	1.36	.13		1.35	.13	
Regular Gasoline 90/94 RON	1.25	.13		1.22	.13	
Auto Diesel Fuel[3, 4]	1.04	x		1.05	x	
Household Kerosene[4]	1.10	x		1.12	x	
Light Heating Oil[5]	1.21	x		1.22	x	
LPG[4]	0.84	x		.78	x	
(Price Per Barrel)						
Distillate Fuel Oil[4, 6]	45.23	x		45.15	x	
Marine Diesel Oil	x	x		x	x	
Medium Fuel Oil[4, 7]	32.73	x		32.38	x	
Heavy Fuel Oil[4, 8]	26.52	x		27.26	x	
Marine Fuel Oil[4]	24.15	x		25.72	x	
CENTRAL AND SOUTH AMERICA						
ARGENTINA, BUENOS AIRES Pesos/U.S. Dollar		4,259[9]			10,575	
(Price Per Gallon)						
Premium Gasoline 93.5/97 RON	1.56	.99	18%	x	x	
Regular Gasoline 84/85 RON	1.29	.77	18%	x	x	
Auto Diesel Fuel	.60	.16	18%	x	x	
Household Kerosene	.94	.47	18%	x	x	
Light Heating Oil[10]	.30	x	18%	x	x	
LPG	.59	x	0	x	x	
(Price Per Barrel)						
Distillate Fuel Oil	25.05	6.87	18%	x	x	
Marine Diesel Fuel	18.18	0	0	x	x	
Medium Fuel Oil[10]	13.82	2.45	18%	x	x	
Heavy Fuel Oil[10]	13.82	2.45	18%	x	x	
Marine Fuel Oil	12.21	0	0	x	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product		July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
CENTRAL AND SOUTH AMERICA (Continued)							
BOLIVIA, LA PAZ	Pesos Boliviano/ U.S. Dollar		25.00			25.00	
(Price Per Gallon)							
Premium Gasoline 92 RON		1.40	.16 v.a.t.	x	1.06	.16 v.a.t.	
Regular Gasoline 82 RON		.92	.10 v.a.t.	x	.91	.10 v.a.t.	
Auto Diesel Fuel		.91	.10 v.a.t.	x	.91	.10 v.a.t.	
Household Kerosene		.61	.07 v.a.t.	x	.61	.07 v.a.t.	
Light Heating Oil		x	x	x	x	x	
LPG		.46	x	x	.45	x	
(Price Per Barrel)							
Distillate Fuel Oil		34.98	3.88 v.a.t.	x	34.98	3.88 v.a.t.	
Marine Diesel Oil		x	x	x	x	x	
Medium Fuel Oil		x	x	x	x	x	
Heavy Fuel Oil		x	x	x	x	x	
Marine Fuel Oil		x	x	x	x	x	
CHILE, SANTIAGO	Pesos/U.S. Dollar		39.00			39.00	
(Price Per Gallon)							
Premium Gasoline 93 RON		2.07	.27 + 20% v.a.t.	10%	x	x	x
Regular Gasoline 81 RON		1.91	.26 + 20% v.a.t.	10%	x	x	x
Auto Diesel Fuel		1.70	20% v.a.t.	10%	x	x	x
Household Kerosene		1.29	20% v.a.t.	10%	x	x	x
Light Heating Oil		x	x	x	x	x	x
LPG		1.09	20% v.a.t.	10%	x	x	x
(Price Per Barrel)							
Distillate Fuel Oil		58.47	20% v.a.t.	10%	x	x	x
Marine Diesel Fuel[11]		52.24	20% v.a.t.	10%	x	x	x
Medium Fuel Oil		47.80	20% v.a.t.	10%	x	x	x
Heavy Fuel oil 2-2.5%S.		42.12	20% v.a.t.	10%	x	x	x
Marine Fuel Oil[11]		39.93	20% v.a.t.	10%	x	x	x
COLOMBIA, BOGOTA	Pesos/U.S. Dollar		54.55[12]			58.25[44]	
(Price Per Gallon)							
Premium Gasoline 93 RON		.96	.72		1.10	.81	
Regular Gasoline 83 RON		.81	.61		.94	.68	
Auto Diesel Fuel		.81	.42		.94	.45	
Household Kerosene		.81	.13		.94	.23	
Light Heating Oil[13, 14]		1.13	x		1.13	x	
LPG		.40	.12		.43	.12	
(Price Per Barrel)							
Distillate Fuel Oil[14]		19.74	14.07		19.74	14.07	
Marine Diesel Fuel[14]		47.04	x		47.04	x	
Medium Fuel Oil		x	x		x	x	
Heavy Fuel Oil		x	x		x	x	
Marine Fuel Oil[14, 15]		30.63	x		30.63	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981			January 1982		
		Includes			Includes	
	Consumer Price	Tax[1]	Customs Duty[2]	Consumer Price	Tax[1]	Customs Duty[2]
CENTRAL AND SOUTH AMERICA (Continued)						
DOMINICAN REP., SANTA DOMINGO Pesos/U.S. Dollar		1.00			1.00	
(Price Per Gallon)						
Premium Gasoline 95 RON	2.57	0		2.57	0	
Regular Gasoline	x	x		x	x	
Auto Diesel Fuel	1.15	0		1.15	0	
Household Kerosene	.97	0		.92	0	
Light Heating Oil 1%S[13]	1.15	0		1.15	0	
LPG[16]	1.03	0		1.03	0	
(Price Per Barrel)						
Distillate Fuel Oil	47.04	0		47.23	0	
Marine Diesel Fuel	47.04	0		46.81	0	
Medium Fuel Oil	x	x		46.20	0	
Heavy Fuel Oil 3.5%S[14]	30.24	0		30.36	0	
Marine Fuel Oil 3.5%S	30.24	0		30.36	0	
EL SALVADOR, SAN SALVADOR[17] Colone/U.S. Dollar		2.50			2.91	
(Price Per Gallon)						
Premium Gasoline 95 RON	2.56	.26	.25 + 6%	2.98	.30	.29 + 6%
Regular Gasoline 87 RON	2.49	.26	.25 + 6%	2.90	.30	.29 + 6%
Auto Diesel Fuel	1.70	.03	.16 + 10%	1.98	.03	.19 + 10%
Household Kerosene	1.58	negl.	0	1.84	negl.	0
Light Heating Oil	x	x	x	x	x	x
LPG	1.33	0	0	1.55	0	0
(Price Per Barrel)						
Distillate Fuel Oil[18]	32.76	.29	.17 + 6%	38.13	.34	.20 + 6%
Marine Diesel Fuel	x	x	x	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	x	x	x	x	x	x
Marine Fuel Oil	x	x	x	x	x	x
JAMAICA, KINGSTON Jamaican Dollars/U.S. Dollar		1.79			1.79	
(Price Per Gallon)						
Premium Gasoline 95 RON	2.17	.79		2.17	.79	
Regular Gasoline 87 RON	2.17	.79		2.12	.79	
Auto Diesel Fuel	1.35	.14		1.35	.14	
Household Kerosene	1.16	0		1.16	0	
Light Heating Oil	x	x		x	x	
LPG	1.35	negl.		1.35	negl.	
(Price Per Barrel)						
Distillate Fuel Oil	55.15	5.87		55.15	5.87	
Marine Diesel Oil	48.75	0		50.33	0	
Medium Fuel Oil	52.81	5.87		52.81	5.87	
Heavy Fuel Oil 2.2%S	34.03	0		34.03	0	
Marine Fuel Oil 2.2%S	27.40	0		27.93	0	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
CENTRAL AND SOUTH AMERICA (Continued)						
PANAMA REPUBLIC, PANAMA[19] Balboa/U.S. Dollar		1.00			1.00	
(Price Per Gallon)						
Premium Gasoline 95 RON	2.26	.10	.41	2.32	.10	.41
Regular Gasoline 87 RON	2.12	.10	.33	2.18	.10	.33
Auto Diesel Fuel	1.33	0	.02	1.40	0	.02
Household Kerosene	1.29	0	.02	1.30	x	x
Light Heating Oil	x	x	x	x	x	x
LPG	.96	x	x	1.00	x	x
(Price Per Barrel)						
Distillate Fuel Oil	38.59	0	.71	38.90	x	x
Marine Diesel Fuel	38.59	x	x	38.90	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	x	x	x	x	x	x
Marine Fuel Oil	x	x	x	x	x	x
PARAGUAY, ASUNCION Guaranies/U.S. Dollar		126.00			126.00	
(Price Per Gallon)						
Premium Gasoline 92 RON	4.51	.28		4.21	.63	
Regular Gasoline 85 RON	3.61	.24		3.30	.40	
Auto Diesel Fuel	1.74	.05		1.74	.03	
Household Kerosene	2.10	.07		2.10	.08	
Light Heating Oil	x	x		x	x	
LPG	2.82	.08		2.82	.06	
(Price Per Barrel)						
Distillate Fuel	68.77	2.11		68.77	1.46	
Marine Diesel Fuel	68.77	2.11		68.77	2.11	
Medium Fuel Oil	55.52	1.70		55.52	1.11	
Heavy Fuel Oil	55.52	1.70		55.52	1.11	
Marine Fuel Oil	55.52	1.70		55.52	1.11	
PERU, LIMA Soles/U.S. Dollar		430.00[20]			513.00[45]	
(Price Per Gallon)						
Premium Gasoline 95 RON	1.10	.40		1.13	.42	
Regular Gasoline 84 RON	.91	.33		.94	.34	
Auto Diesel Fuel	.58	.16		.65	.18	
Household Kerosene	.16	.01		.19	x	
Light Heating Oil	x	x		x	x	
LPG	.48	x		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	16.80	5.46		x	x	
Marine Diesel Oil	x	x		x	x	
Medium Fuel Oil	20.58	x		x	x	
Heavy Fuel Oil	17.22	x		x	x	
Marine Fuel Oil	x	x		19.74	6.30	
URUGUAY, MONTEVIDEO New Pesos/U.S. Dollar		10.815			11.600	
(Price Per Gallon)						
Premium Gasoline 95 RON	4.17	1.58		4.14	1.57	
Regular Gasoline 80 RON	3.35	1.21		3.36	1.21	
Auto Diesel 1%S	1.70	.40		1.69	.40	
Household Kerosene .2%S	1.81	.26		1.80	.26	
Light Heating Oil 2%S	1.38	.23		1.38	.23	
LPG .015%S	1.91	.13		1.90	.13	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		x	x	
Marine Diesel Fuel	x	x		x	x	
Medium Fuel Oil 3%S	42.06	7.13		41.95	7.11	
Heavy Fuel Oil 4%S	33.30	3.25		33.22	3.24	
Marine Fuel Oil 4%S	26.43	0		30.71	0	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
CENTRAL AND SOUTH AMERICA (Continued)						
VENEZUELA, CARACAS Bolivares/U.S. Dollar		4.30			4.30	
(Price Per Gallon)						
Premium Gasoline 85+ RON	.31	.13		.31	.13	
Regular Gasoline 77/84 RON	.13	.01		.13	.01	
Auto Diesel Fuel 74/76 RON	.09	negl.		.09	negl.	
Household Kerosene	.09	negl.		.09	negl.	
Light Heating Oil[13]	.24	x		.24	x	
LPG	.63	x		.64	x	
(Price Per Barrel)						
Distillate Fuel Oil	2.03	x		2.03	x	
Marine Diesel Fuel	5.61	x		3.12	x	
Medium Oil	x	x		x	x	
Heavy Fuel Oil	1.60	x		1.50	x	
Marine Fuel Oil	1.60	x		1.50	x	
WESTERN EUROPE						
AUSTRIA, VIENNA Schillings/U.S. Dollar		16.97			15.65	
(Price Per Gallon)						
Premium Gasoline 96 RON	2.32	.74 + 26% v.a.t.[23]	0 – .06	2.76	.80 + 8% + 18% v.a.t.	0 – .06
Regular Gasoline 86 RON	2.16	.74 + 26% v.a.t.[23]	0 – .06	2.64	.80 + 8% + 18% v.a.t.	0 – .06
Auto Diesel Fuel	2.23	.66 + 26% v.a.t.[23]	0 – .03	2.49	.71 + 8% + 18% v.a.t.	0 – .03
Household Kerosene[21]	3.57	.66 + 13% v.a.t.	0 – .03	4.02	.71 + 13 % v.a.t.	0 – .03
Light Heating Oil .5%S	1.38	.11 + 13% v.a.t.	0 – .03	1.57	.12 + 13% v.a.t.	0 – .03
LPG	0.87	0	0 – 4.7%	0.98	13% v.a.t.	0 – 4.6%
(Price Per Barrel)	x	x	x	x	x	x
Distillate Fuel Oil	93.68	27.56 + 26% v.a.t.[23]	0 – 1.42	104.66	29.90 + 8% + 18% v.a.t.	0 – 1.54
Marine Diesel Fuel	45.66	13% v.a.t.	0 – .55	49.30	13% v.a.t.	0 – .57
Medium Fuel Oil	32.18	13% v.a.t.	0 – .55	34.84	13% v.a.t.	0 – .57
Heavy Fuel Oil 3.5%[22]	x	x	x	x	x	x
Marine Fuel Oil						
BELGIUM, BRUSSELS Francs/U.S. Dollar		39.47			38.08	
(Price Per Gallon)						
Premium Gasoline 98/99 RON	2.80	1.46		2.79	1.51	
Regular Gasoline 91/93 RON	2.71	1.44		2.77	1.49	
Auto Diesel Fuel	1.91	.77		2.20	.86	
Household Kerosene	1.24	.18		1.47	.21	
Light Heating Oil	1.17	.17		1.41	.20	
LPG	1.70	.25		1.89	.27	
(Price Per Barrel)	49.81	7.24		59.62	8.66	
Distillate Fuel Oil	48.38	7.03		x	x	
Marine Diesel Fuel	39.57	5.75		44.45	6.46	
Medium Fuel Oil 130-200 secs.	33.95	4.93		31.07	4.51	
Heavy Fuel Oil 700 secs.	30.77	4.47		x	x	
Marine Fuel Oil 3.5%						
DENMARK, COPENHAGEN Kroner/U.S. Dollar		7.555			7.330	
(Price Per Gallon)						
Premium Gasoline 97/98 RON	2.89	1.49		2.90	1.52	
Regular Gasoline 92 RON	2.85	1.48		2.86	1.52	
Auto Diesel Fuel	1.75	.52		1.86	.54	
Household Kerosene	1.58	.28		1.67	.30	
Light Heating Oil[13]	1.59	.58		1.68	.51	
LPG	1.29	1.06		1.39	.38	
(Price Per Barrel)	66.63	20.11		71.06	21.51	
Distillate Fuel Oil	37.93	0		43.70	0	
Marine Diesel Oil	x	x		x	x	
Medium Fuel Oil	50.05	16.59		47.20	16.50	
Heavy Fuel Oil	30.04	0		32.84	0	
Marine Fuel Oil						

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
WESTERN EUROPE (Continued)						
FINLAND, HELSINKI Markkaa/U.S. Dollar		4.45			4.62[49]	
(Price Per Gallon)						
Premium Gasoline 98 RON	2.88	.95		2.79	.96	
Regular Gasoline 92 RON	2.77	.95		2.68	.96	
Auto Diesel Fuel	2.00	.57		1.93	.58	
Household Kerosene	1.57	.05		1.47	.05	
Light Heating Oil	1.25	.08		1.16	.10	
LPG	1.52	.01		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	82.46	23.80		79.84	24.28	
Marine Diesel Fuel	49.04	0		44.80	0	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil 2.7%S	30.25	2.21		28.57	2.90	
Marine Fuel Oil 2.7%S	29.26	0		26.97	0	
GREECE, ATHENS Drachmas/U.S. Dollar		56.41			57.63	
(Price Per Gallon)						
Premium Gasoline 96/98 RON	2.37	.86	.09	x	x	x
Regular Gasoline 90 RON	2.11	.73	.08	x	x	x
Auto Diesel Fuel	1.12	.06	.06	x	x	x
Household Kerosene	1.43	.05	0	x	x	x
Light Heating Oil[13]	1.05	.04	.06	x	x	x
LPG	1.03	.07	.05	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	47.09	2.55	2.67	x	x	x
Marine Diesel Fuel	34.24	0	0	0	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil 4%S	22.57	.85	0	x	x	x
Marine Fuel Oil 4%S	19.75	0	0	x	x	x

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
WESTERN EUROPE (Continued)						
ITALY, ROME Lire/U.S. Dollar		1198.5				
(Price Per Gallon)						
Premium Gasoline 97 RON[24]	2.84	1.69	6%	x	x	x
Regular Gasoline 84 RON[24]	2.73	1.67	6%	x	x	x
Auto Diesel Fuel[24]	1.26	.22	3.5%	x	x	x
Household Kerosene	1.06	.17	6%	x	x	x
Light Heating Oil	0.85	.13	6%	x	x	x
LPG	1.64	.14	1.5%	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	47.04	8.30	3.5%	x	x	x
Marine Diesel Oil	42.02	0	0	x	x	x
Medium Fuel Oil	33.10	5.71	3.5%	x	x	x
Heavy Fuel Oil 3-4%S[24]	32.84	4.40	3.5%	x	x	x
Marine Fuel Oil 3-4%S	28.49	0	0	x	x	x
LUXEMBOURG, LUXEMBOURG Francs/U.S. Dollar		38.05			38.04	
(Price Per Gallon)						
Premium Gasoline 98/99 RON	2.05	.10 v.a.t.	.69	2.34	.21 v.a.t.	.84
Regular Gasoline 91/92 RON	1.99	.09 v.a.t.	.69	2.26	.21 v.a.t.	.84
Auto Diesel Fuel	1.34	.06 v.a.t.	.20	1.71	.16 v.a.t.	.28
Household Kerosene	1.14	.05 v.a.t.	.04	1.34	.06 v.a.t.	.04
Light Heating Oil	1.08	.05 v.a.t.	.02	1.26	.06 v.a.t.	x
LPG	1.19	.06 v.a.t.	x	1.39	.07 v.a.t.	x
(Price Per Barrel)						
Distillate Fuel Oil	46.34	2.21 v.a.t.	1.08	55.04	2.63 v.a.t.	1.88
Marine Diesel Fuel	x	x	x	x	x	x
Medium Fuel Oil	37.93	1.81 v.a.t.	.38	40.84	1.95 v.a.t.	.38
Heavy Fuel Oil 3.5%S	31.14	1.98 v.a.t.	.38	28.82	1.37 v.a.t.	.38
Marine Fuel Oil	x	x	x	x	x	x
NETHERLANDS THE HAGUE Guilders/U.S. Dollar		2.37			2.50	
(Price Per Gallon)						
Premium Gasoline 98/99 RON	2.58	1.27	x	2.50	.38 v.a.t.	.87
Regular Gasoline 92/93 RON	2.49	1.25	x	2.59	.39 v.a.t.	.87
Auto Diesel Fuel	1.76	.57	x	1.81	.28 v.a.t.	.29
Household Kerosene	1.56	.34	x	1.62	18% v.a.t.	.05
Light Heating Oil	1.14	.26	x	1.42	18% v.a.t.	.05
LPG	x	x	x	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	x	x	x	x	x	
Marine Diesel Fuel	x	x	x	x	x	
Medium Fuel Oil	x	x	x	x	x	
Heavy Fuel Oil	x	x	x	x	x	
Marine Fuel Oil 3500 secs., 1%S	39.16	x	x	34.58	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
WESTERN EUROPE (Continued)						
NORWAY, OSLO Kroner/U.S. Dollar		6.06			5.87	
(Price Per Gallon)						
Premium Gasoline 98/99 RON	2.73	1.36		2.89	1.41	
Regular Gasoline 93 RON	2.68	1.33		2.84	1.38	
Auto Diesel Fuel	1.52	.27		1.63	.29	
Household Kerosene	1.46	.25		1.57	.27	
Light Heating Oil	1.37	.24		1.48	.26	
LPG	0.81	.14		1.05	.17	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		x	x	
Marine Diesel Oil	59.24	10.41		62.84	11.02	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil 2.2%S	38.35	7.28		39.62	7.54	
Marine Fuel Oil	x	x		x	x	
PORTUGAL, LISBON Escudos/U.S. Dollar		63.36			65.08	
(Price Per Gallon)						
Premium Gasoline 98 RON	2.99	1.85	.10	3.37	2.11	.05
Regular Gasoline 85 RON	2.75	1.66	.10	3.14	1.93	.05
Auto Diesel Fuel	1.34	0.29	.01	1.63	.49	.01
Household Kerosene	1.34	0.22	.03	1.63	.41	.01
Light Heating Oil[13]	1.34	0.29	.01	1.63	.49	.01
LPG	.97	0.01	.04	.95	.05	.04
(Price Per Barrel)						
Distillate Fuel Oil	56.46	12.09	.21	68.40	20.37	.10
Marine Diesel Fuel	41.40	0	0	79.40	0	0
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil 3.5%S	20.29	x	.23	29.63	0	.11
Marine Fuel Oil	x	x	x	x	x	x
SPAIN, MADRID Pesetas/U.S. Dollar		97.40[25]			96.00	
(Price Per Gallon)						
Premium Gasoline 98 RON	2.84	.97		2.88	.99	
Regular Gasoline 90 RON	2.53	.95		2.56	.97	
Auto Diesel Fuel	1.67	.33		1.70	.34	
Household Kerosene	1.71	.08		1.74	.08	
Light Heating Oil	1.22	.02		1.24	.02	
LPG	.95	.02		.94	.02	
(Price Per Barrel)						
Distillate Fuel Oil	70.19	14.04		71.21	14.24	
Marine Diesel Fuel	52.24	1.63		53.00	1.66	
Medium Fuel Oil	29.69	.06		32.63	.06	
Heavy Fuel Oil	29.69	.06		32.63	.06	
Marine Fuel Oil	29.69	.06		32.63	.06	
SWEDEN, STOCKHOLM Kronor/U.S. Dollar		5.12			5.57	
(Price Per Gallon)						
Premium Gasoline 98 RON	2.66	1.21		x	x	
Regular Gasoline 93 RON	2.61	1.22		x	x	
Auto Diesel Fuel[26]	1.34	.22		x	x	
Household Kerosene	1.40	0		x	x	
Light Heating Oil	1.19	.22		x	x	
LPG[27]	.80	0		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	54.72	9.29		x	x	
Marine Diesel Oil[28]	48.28	2.86		x	x	
Medium Fuel Oil 1%S	52.08	9.29		x	x	
Heavy Fuel Oil 1%S	52.88	9.29		x	x	
Marine Fuel Oil 1%S	52.88	9.29		x	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
WESTERN EUROPE (Continued)						
SWITZERLAND, ZURICH Francs/U.S. Dollar		2.04			1.80	
(Price Per Gallon)						
Premium Gasoline 98 RON	2.49	1.11	x	x	x	x
Regular Gasoline 90/91 RON	2.47	1.11	x	x	x	x
Auto Diesel Fuel	2.34	1.14	x	x	x	x
Household Kerosene	x	x	x	x	x	x
Light Heating Oil	1.05	0	.06	x	x	x
LPG	2.20	0	.02	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	x	x	x	x	x	x
Marine Fuel Oil	42.49	0	0	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	30.95	0	2.73	x	x	x
Marine Fuel Oil	x	x	x	x	x	x
TURKEY, ANKARA Liras/U.S. Dollar		123.17			134.95	
(Price Per Gallon)						
Premium Gasoline 95 RON	1.74	.08	negl.	1.62	.07	negl.
Regular Gasoline 85 RON	1.56	.07	negl.	1.47	.06	negl.
Auto Diesel Fuel	1.10	.06	negl.	.98	.06	negl.
Household Kerosene	1.13	.07	negl.	1.01	.06	negl.
Light Heating Oil	1.05	.06	negl.	.92	.06	negl.
LPG	.71	.06	.08	.68	.06	.08
(Price Per Barrel)						
Distillate Fuel Oil	46.00	2.71	.04	41.07	2.57	.03
Marine Diesel Fuel	x	x	x	x	x	x
Medium Fuel Oil	33.67	1.74	negl.	29.63	1.66	.01
Heavy Fuel Oil	29.83	1.64	negl.	27.27	1.54	.01
Marine Fuel Oil	x	x	x	x	x	x
UNITED KINGDOM, LONDON Pounds/U.S. Dollar		0.52			0.53	
(Price Per Gallon)						
Premium Gasoline 97 RON	2.65	1.36		2.50	.99 + 15% v.a.t.	
Regular Gasoline 90 RON	2.62	1.36		2.46	.99 + 15% v.a.t.	
Auto Diesel Fuel	2.69	1.37		2.50	.99 + 15% v.a.t.	
Household Kerosene	1.39	.02		1.46	.06	
Light Heating Oil	1.17	.06		1.26	.06	
LPG	1.02	0		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		x	x	
Marine Diesel Fuel[29]	42.36	x		43.70	x	
Medium Fuel Oil	45.22	2.38		47.51	2.31	
Heavy Fuel Oil	43.64	2.38		44.95	2.31	
Marine Fuel Oil	30.57	x		28.29	x	
YUGOSLAVIA, BELGRADE Dinars/U.S. Dollar		33.94			37.66[46]	
(Price Per Gallon)						
Premium Gasoline 98 RON	x	x		2.86	.96	
Regular Gasoline 87/88 RON	x	x		2.66	.96	
Auto Diesel Fuel	x	x		2.41	.74	
Household Kerosene	x	x		2.26	.29	
Light Heating Oil	x	x		1.47	.11	
LPG	x	x		1.08	.23	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		59.10	4.22	
Marine Diesel Oil	x	x		59.10	4.22	
Medium Fuel Oil	x	x		56.15	1.90	
Heavy Fuel Oil	x	x		54.04	5.07	
Marine Fuel Oil	x	x		54.04	5.07	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
MIDDLE EAST						
IRAN, TEHRAN Rials/U.S. Dollar		70.10			x	
(Price Per Gallon)						
Premium Gasoline 97 RON	2.16	.21		x	x	
Regular Gasoline 90 RON	1.62	.21		x	x	
Auto Diesel Fuel	x	x		x	x	
Household Kerosene	.14	.04		x	x	
Light Heating Oil	.06	x		x	x	
LPG	x	x		x	x	
(Price Per Barrel)						
Distillate Fuel Oil[30]	4.08	x		x	x	
Marine Diesel Fuel	x	x		x	x	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil	x	x		x	x	
Marine Fuel Oil	34.29	x		x	x	
ISRAEL, TEL AVIV[32] Shekels/U.S. Dollar		11.61			16.02	
(Price Per Gallon)						
Premium Gasoline 94 RON	2.12	.53 + 12% v.a.t.		2.08	.55 + 12% v.a.t.	
Regular Gasoline 83 RON	2.02	.50 + 12% v.a.t.		1.84	.40 + 12% v.a.t.	
Auto Diesel Fuel	1.21	(.22) + 12% v.a.t.		1.49	.10 + 12% v.a.t.	
Household Kerosene	1.20	(.22) + 12% v.a.t.		1.37	.15 + 12% v.a.t.	
Light Heating Oil	.93	(.27) + 12% v.a.t.		1.13	(.01) + 12% v.a.t.	
LPG	1.29	(.21) + 12% v.a.t.		1.18	(.44) + 12% v.a.t.	
(Price Per Barrel)						
Distillate Fuel Oil	47.20	(9.13) + 12% v.a.t.		58.88	4.21 + 12% v.a.t.	
Marine Diesel Fuel	43.16	0		45.58	0	
Medium Fuel Oil	32.00	(3.43) + 12% v.a.t.		38.48	4.12 + 12% v.a.t.	
Heavy Fuel Oil 3.3%S	28.23	(9.40) + 12% v.a.t.		33.93	(.87) + 12% v.a.t.	
Marine Fuel Oil 3.3%S	28.71	0		29.14	0	
LEBANON, BEIRUT Pounds/U.S. Dollar		4.17			4.60	
(Price Per Gallon)						
Premium Gasoline 92 RON	.99	.17	.01	x	x	x
Regular Gasoline	x	x	x	x	x	x
Auto Diesel Fuel	x	x	x	x	x	x
Household Kerosene	.55	.07	.02	x	x	x
Light Heating Oil	.64	.02	0	x	x	x
LPG	x	x	x	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	x	x	x	x	x	x
Marine Diesel Oil	37.80	.63	0	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	16.38	.42	0	x	x	x
Marine Fuel Oil	23.10	.42	0	x	x	x
SAUDI ARABIA, RAS TAMURA Riyals/U.S. Dollar		3.42			3.42	
(Price Per Gallon)						
Premium Gasoline 95 RON	24	0		x	x	
Regular Gasoline 83.5 RON	.18	0		x	x	
Auto Diesel Fuel	.08	0		x	x	
Household Kerosene	.15	0		x	x	
Light Heating Oil	x	x		x	x	
LPG	x	x		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		x	x	
Marine Diesel Fuel	x	x		x	x	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil	x	x		x	x	
Marine Fuel Oil	x	x		x	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
AFRICA						
ETHIOPIA, ADDIS ABABA Birr/U.S. Dollar		2.38			2.07	
(Price Per Gallon)						
Premium Gasoline 93 RON	2.36	.28		2.36	.28	
Regular Gasoline 79/82 RON	2.18	.23		2.18	.23	
Auto Diesel Fuel	.99	.16		1.44	.16	
Household Kerosene	1.20	.13		1.20	0	
Light Heating Oil	1.02	0		.84	0	
LPG	1.29	.12		1.29	.12	
(Price Per Barrel)						
Distillate Fuel Oil	x	x		46.58	6.53	
Marine Diesel Fuel	46.25	0		46.25	0	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil	x	x		x	x	
Marine Fuel Oil 3.5%S	30.00	0		27.14	0	
GHANA, ACCRA Cedis/U.S. Dollar		2.75			2.75	
(Price Per Gallon)						
Premium Gasoline 93/95 RON	3.94	.06	.49	3.72	.06	1.01
Regular Gasoline 84/87 RON	3.63	.06	.57	3.42	.06	1.09
Auto Diesel Fuel	2.73	.06	.07	2.57	.06	.83
Household Kerosene	1.67	.06	.07	1.51	.06	.07
Light Heating Oil[13]	1.97	.06	.07	x	x	x
LPG	1.72	0	0	1.32	0	.13
(Price Per Gallon)[34]						
Distillate Fuel Oil	58.03	0	0	58.02	0	0
Marine Diesel Fuel	x	x	x	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	43.39	0	0	43.39	0	0
Marine Fuel Oil	43.39	0	0	43.39	0	0
KENYA, NAIROBA Shillings/U.S. Dollar		8.79			10.18	
(Price Per Gallon)						
Premium Gasoline 93 RON	2.74	.92	.28	x	x	x
Regular Gasoline 83 RON	2.55	.84	.28	x	x	x
Auto Diesel Fuel	1.78	.34	.19	x	x	x
Household Kerosene	1.20	x	.09	x	x	x
Light Heating Oil	x	x	x	x	x	x
LPG	1.11	x	x	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil 1.8%S	42.15	0	0	x	x	x
Marine Diesel Oil 1.8%S	39.25	0	0	x	x	x
Medium Fuel Oil 3.7%S	30.39	0	0	x	x	x
Heavy Fuel Oil 3.7%S	29.49	0	0	x	x	x
Marine Fuel Oil 4.0%S	26.05	0	0	x	x	x
MOROCCO, RABAT[35] Dirhams/U.S. Dollar		5.44			5.33	
(Price Per Gallon)						
Premium Gasoline 95/98 RON	2.75	.52		x	x	
Regular Gasoline 88 RON	2.61	.51		x	x	
Auto Diesel Fuel	1.46	.21		x	x	
Household Kerosene	1.46	.22		x	x	
Light Heating Oil[13]	1.21	.18		x	x	
LPG	1.77	.17		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	61.37	8.86		x	x	
Marine Diesel Fuel	48.93	0		x	x	
Medium Fuel Oil	35.45	27.60		x	x	
Heavy Fuel Oil	28.10	22.78		x	x	
Marine Fuel Oil	31.43	0		x	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
AFRICA (Continued)						
SOUTH AFRICA, CAPETOWN[36] Rand/U.S. Dollar		.87			.94	
(Price Per Gallon)						
Premium Gasoline 98 RON	2.23	.95	x	2.30	.92	x
Regular Gasoline 87 RON	2.20	.94	x	2.27	.92	x
Auto Diesel Fuel	2.22	.99	x	2.30	.87	x
Household Kerosene	1.39	.23	x	1.49	.22	x
Light Heating Oil	1.57	.96	x	1.69	.85	x
LPG	1.86	.41	x	1.73	.21	x
(Price Per Barrel)						
Distillate Fuel Oil	67.76	24.03	x	72.56	20.58	x
Marine Diesel Fuel	64.16	21.47	x	68.90	2.69	x
Medium Fuel Oil	67.60	24.12	x	72.40	20.58	x
Heavy Fuel Oil	38.82	1.88	x	35.77	1.65	x
Marine Fuel Oil	38.49	1.54	x	35.47	1.35	x
TUNISIA, TUNIS Dinars/U.S. Dollar		.52			.52	
(Price Per Gallon)						
Premium Gasoline 95/98 RON	x	x	x	2.06	1.29	0
Regular Gasoline 87/88 RON	x	x	x	1.95	1.23	0
Auto Diesel Fuel	x	x	x	x	x	x
Household Kerosene	x	x	x	.44	.11	0
Light Heating Oil	x	x	x	.54	.09	0
LPG	x	x	x	.64	.02	0
(Price Per Barrel)						
Distillate Fuel Oil	x	x	x	x	x	x
Marine Diesel Oil	x	x	x	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	x	x	x	15.24	4.03	0
Marine Fuel Oil	x	x	x	x	x	x
FAR EAST AND OCEANIA						
AUSTRALIA, CANBERRA[37] Dollars/U.S. Dollar		.86			.89	
(Price Per Gallon)						
Premium Gasoline 97 RON	1.83	x	x	x	x	x
Regular Gasoline 89/92 RON	1.77	x	x	x	x	x
Auto Diesel Fuel	1.90	x	x	x	x	x
Household Kerosene	1.51	x	x	x	x	x
Light Heating Oil	x	x	x	x	x	x
LPG	x	x	x	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	60.15	x	x	x	x	x
Marine Diesel Fuel	x	x	x	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	x	x	x	x	x	x
Marine Fuel Oil	x	x	x	x	x	x
BURMA, RANGOON[38] Kyats/U.S. Dollar		7.45			7.40	
(Price Per Gallon)						
Premium Gasoline	x	x		x	x	
Regular Gasoline 80 RON	.39	.02		x	x	
Auto Diesel Fuel	.28	.02		x	x	
Household Kerosene	.28	.02		x	x	
Light Heating Oil	.28	.02		x	x	
LPG	x	x				
(Price Per Barrel)						
Distillate Fuel Oil	11.73	.70		x	x	
Marine Diesel Fuel	x	x		x	x	
Medium Fuel Oil	x	x		x	x	
Heavy Fuel Oil	x	x		x	x	
Marine Fuel Oil	x	x		x	x	

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
FAR EAST AND OCEANIA (Continued)						
INDIA, NEW DELHI Rupees/U.S. Dollar		8.50			9.10	
(Price Per Gallon)						
Premium Gasoline 93 RON	2.53	.99 + 7%		2.60	1.05	
Regular Gasoline 83 RON	2.45	.99 + 7%		2.53	1.09	
Auto Diesel Fuel	1.19	.15 + 7%		1.26	.22	
Household Kerosene	.73	.15 + 3%		.75	.16	
Light Heating Oil	x	x		x	x	
LPG	.73	.07 + 7%		.76	.09	
(Price Per Barrel)[39]						
Distillate Fuel Oil	44.77	9% + Excise		41.82[47]	9%	
Marine Diesel Oil	48.42	9% + Excise		48.42[47]	9%	
Medium Fuel Oil	44.13	4% + Excise		41.22[47]	4%	
Heavy Fuel Oil	37.56	4% + Excise		35.09[47]	4%	
Marine Fuel Oil	35.05	4% + Excise		31.48[47]	4%	
INDONESIA, DJAKARTA[40] Rupiahs/U.S. Dollar		625.00			644.00	
(Price Per Gallon)						
Premium Gasoline 98 RON	1.33	x		x	x	
Regular Gasoline 87 RON	.91	x		x	x	
Auto Diesel Fuel	.32	x		x	x	
Household Kerosene	.23	x		x	x	
Light Heating Oil	x	x		x	x	
LPG	.89	x		x	x	
(Price Per Barrel)						
Distillate Fuel Oil	13.36	x		x	x	
Marine Diesel Fuel	13.36	x		x	x	
Medium Fuel Oil	11.45	x		x	x	
Heavy Fuel Oil	11.45	x		x	x	
Marine Fuel Oil	11.45	x		x	x	
JAPAN, TOKYO Yens/U.S. Dollar		230.00			225.00	
(Price Per Gallon)						
Premium Gasoline 97.8 RON	2.72	.89 + 3.5%	.04	2.91	.91 + 3.5%	.04
Regular Gasoline 90.6 RON	2.55	.89 + 3.5%	.04	2.74	.91 + 3.5%	.04
Auto Diesel Fuel	1.73	.40 + 3.5%	.03	1.95	.41 + 3.5%	.03
Household Kerosene	1.40	3.5%	.02	1.53	3.5%	.02
Light Heating Oil[13]	1.73	.40 + 3.5%	.03	1.95	.41 + 3.5%	.03
LPG	2.23	.16	negl.	2.28	.16	.01
(Price Per Barrel)						
Distillate Fuel Oil	67.75	16.50 + 3.5%	1.31	74.20	17.17 + 3.5%	1.34
Marine Diesel Fuel	47.00	3.5%	2.24	54.41	3.5%	2.29
Medium Fuel Oil 2%S	48.04	3.5%	2.08	54.41	3.5%	2.13
Heavy Fuel Oil 3%S	37.67	3.5%	2.03	42.04	3.5%	2.08
Marine Fuel Oil 3%S	37.67	3.5%	2.03	40.98	3.5%	2.08
S. KOREA, SEOUL Wons/U.S. Dollar		685.00			690.00[48]	
(Price Per Gallon)						
Premium Gasoline 97 RON	x	x	x	5.82	3.29	x
Regular Gasoline 86 RON	x	x	x	4.06	2.29	x
Auto Diesel Fuel	x	x	x	1.53	.21	x
Household Kerosene	x	x	x	1.60	.13	x
Light Heating Oil	x	x	x	x	x	x
LPG	x	x	x	2.50	.23	x
(Price Per Barrel)						
Distillate Fuel Oil	x	x	x	x	x	x
Marine Diesel Oil	x	x	x	52.81	4.51	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	x	x	x	48.73	4.14	x
Marine Fuel Oil	x	x	x	x	x	x

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
FAR EAST AND OCEANIA (Continued)						
PAKISTAN, ISLAMABAD[41] Rupees/U.S. Dollar		9.90			9.90	
(Price Per Gallon)						
Premium Gasoline 87 RON	2.16	.34	.34	2.19	.34	.34
Regular Gasoline 80 RON	1.91	.34	.34	1.93	.34	.34
Auto Diesel Fuel	1.17	.10	.10	1.20	.10	.10
Household Kerosene	1.05	0	0	1.05	0	0
Light Heating Oil	x	x	x	x	x	x
LPG	.68	0	0	.68	0	0
(Price Per Barrel)						
Distillate Fuel Oil	x	x	x	x	x	x
Marine Diesel Fuel	x	x	x	x	x	x
Medium Fuel Oil	x	x	x	x	x	x
Heavy Fuel Oil	20.08	.57	x	19.48	.51	x
Marine Fuel Oil	34.19	.57	x	26.43	.51	x
PHILIPPINES, MANILA Pesos/U.S. Dollar		7.95			8.10	
(Price Per Gallon)						
Premium Gasoline 93 RON	2.50	1.21		2.45	1.19	
Regular Gasoline 81 RON	2.40	1.20		2.36	1.18	
Auto Diesel Fuel	1.48	.22		1.45	.21	
Household Kerosene	1.49	.15		1.46	.15	
Light Heating Oil	x	x		x	x	
LPG	1.46	.09		1.43	.09	
(Price Per Barrel)						
Distillate Fuel Oil	41.60	4.00		40.83	3.93	
Marine Diesel Fuel	41.60	4.00		40.83	3.93	
Medium Fuel Oil	41.60	4.00		40.83	3.93	
Heavy Fuel Oil	41.60	4.00		40.83	3.93	
Marine Fuel Oil	41.60	4.00		40.83	3.93	
SINGAPORE, SINGAPORE[42] Dollars/U.S. Dollar		2.07			2.05	
(Price Per Gallon)						
Premium Gasoline 97 RON	1.91	.66	.66	x	x	x
Regular Gasoline 85 RON	1.77	.63	.63	x	x	x
Auto Diesel Fuel	1.23	.11	.11	x	x	x
Household Kerosene	1.21	.02	.02	x	x	x
Light Heating Oil	x	x	x	x	x	x
LPG	1.52	.07	.07	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	50.00	0	0	x	x	x
Marine Diesel Oil	45.32	0	0	x	x	x
Medium Fuel Oil	46.70	0	0	x	x	x
Heavy Fuel Oil	x	x	x	x	x	x
Marine Fuel Oil	34.40	0	0	x	x	x
SRI LANKA, COLOMBO Rupees/U.S. Dollar		18.90			20.55	
(Price Per Gallon)						
Premium Gasoline 90 RON	2.00	1%	x	x	x	x
Regular Gasoline	x	x	x	x	x	x
Auto Diesel Fuel	1.19	1%	x	x	x	x
Household Kerosene	.78	1%	x	x	x	x
Light Heating Oil	x	x	x	x	x	x
LPG[43]	.60	1%	x	x	x	x
(Price Per Barrel)						
Distillate Fuel Oil	55.51	2%	3%	x	x	x
Marine Diesel Fuel	56.96	0	0	x	x	x
Medium Fuel Oil 800 secs.	37.00	1%	x	x	x	x
Heavy Fuel Oil 3500 secs.	29.61	1%	x	x	x	x
Marine Fuel Oil 1500 secs.	30.90	0	0	x	x	x

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Table 23. WORLD SURVEY OF PETROLEUM PRODUCT PRICES (Continued)

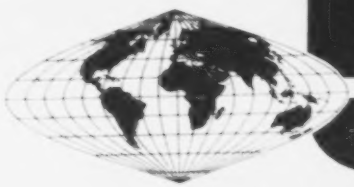
(U.S. Dollars)

Region and Country/Product	July 1981 Consumer Price	July 1981 Includes Tax[1]	July 1981 Includes Customs Duty[2]	January 1982 Consumer Price	January 1982 Includes Tax[1]	January 1982 Includes Customs Duty[2]
FAR EAST AND OCEANIA (Continued)						
THAILAND, BANKOK Baht/U.S. Dollar		21.05			23.05	
(Price Per Gallon)						
Premium Gasoline 95 RON	2.14	.73	.52	2.21	.75	.48
Regular Gasoline 83 RON	2.05	.70	.52	1.87	.64	.48
Auto Diesel Fuel	1.33	.18	.10	1.21	.16	.09
Household Kerosene	1.10	.07	.01	1.01	.06	.01
Light Heating Oil	.85	negl.	negl.	.77	negl.	negl.
LPG	.92	negl.	negl.	.84	negl.	negl.
(Price Per Barrel)						
Distillare Fuel Oil	53.78	7.18	4.00	49.11	6.55	3.66
Marine Diesel Fuel	53.78	7.18	4.00	49.11	6.55	3.66
Medium Fuel Oil	33.76	.01	.01	30.83	.01	.01
Heavy Fuel Oil 3.5%S	33.16	.01	.01	30.28	.01	.01
Marine Fuel Oil	x	x	x	30.28	.01	.01

Abbreviations
- negl. = Negligible, less than 0.5 U.S. cents.
- RON = Minimum research octane number.
- S = Maximum sulfur content.
- secs. = Seconds (a measure of viscosity).
- v.a.t. = Value-added tax.
- x = Not reported
- ( ) = Duty in parenthesis represents negative values due to refunds by the government.

[1]Tax includes value added tax, whenever applicable.
[2]Custom duty value is nil unless amount is given.
[3]No. 2 diesel fuel oil retail price.
[4]Price excludes tax.
[5]No. 2 heating oil retail price.
[6]No. 1 diesel fuel oil wholesale price.
[7]No. 5 residual fuel oil wholesale price.
[8]Average No. 6 residual fuel oil wholesale price, 0.3-1.01 sulfur.
[9]Prices and exchange rate as of June 1, 1981.
[10]Subsidized by the government.
[11]Prices at Valparaiso.
[12]Exchange rate as of July 16, 1981.
[13]Price for gasoil.
[14]Prices at Cartagena.
[15]July 1981 price is for port sales which constitute almost the entire market. Very small quantity domestically sold.
[16]70% Butane and 30% Propane.
[17]Taxes include federal and municipal taxes at refinery.
[18]At refinery, Acajutla.
[19]Tax does not include other hidden taxes, amount of which is not known. Customs duty is the equivalent import duty tax, applied to local production as well as imports.
[20]Prices and exchange rate as of July 31, 1981 for Lima-Callao area.
[21]Average retail price at drugstores.
[22]Car lots, free loading station Schwechat refinery.
[23]Also includes a special charge assessed by the custom authorities.
[24]Tax includes excise tax assessed at the refinery or storage facility; v.a.t. is applied on refinery price plus excise tax.
[25]Prices and exchange rate as of September 1, 1981.
[26]Does not include additional "kilometer tax" on diesel fuel based on distance driven each quarter and gross weight of the vehicle.
[27]Sold only in bulk to industries.
[28]There is no energy tax on bunker oil to ships.
[29]Prices at Thames Ports.
[30]Prices at Bandar Abbas.
[31]Prices at Kharg Island.
[32]Taxes are assessed at distribution point when oil leaves refineries or oil terminals (storage facilities).
[33]Prices and exchange rates as of July 31, 1981.
[34]Prices at Tema, Ghana.
[35]Prices at Mohammedia and Sidi-Kacem.
[36]Prices at coast; taxes include custom duty.
[37]Prices at Melbourne.
[38]The official prices have been in effect since 1974 without change. Since the official supplies are limited, the needs are met from the unofficial market at a considerably higher cost.
[39]Prices at Bombay.
[40]Retail prices include 10% sales tax and 10% excise tax.
[41]Excise tax is assessed on locally refined products while customs duty is assessed on imported products; prices are at Karachi.
[42]Taxes refer to excise duty assessed at point of production.
[43]Mixture of butane and propane in approximate 95:5 proportion.
[44]Taxes in Colombia are not collected on retail sales but at refinery. Total taxes (including duty) amount up to 136 percent average.
[45]Prices and exchange rate as of January 11, 1982.
[46]Prices and exchange rate as of October 10, 1981.
[47]Excludes sales tax.
[48]Prices and exchange rate as of November 28, 1981.
[49]Prices and exchange rate as of March 20, 1982.

Note: Petroleum product prices represent consumer/retail prices, including tax. Prices per gallon relate to low-volume consumption, e.g., private transportation and household consumers. Liquefied petroleum gas (LPG) prices refer to prices for residential propane or a mixture of propane and butane. Prices per barrel relate to high-volume consumption, e.g., multiple family dwelling units, large commercial and industrial consumers. Marine bunker fuel prices are posted prices, not adjusted for premia or discounts that are generally given. Countries in the survey that assess value-added tax on petroleum products include: Argentina, Austria, Belgium, Bolivia, Chile, Colombia, Denmark, Israel, Italy, South Korea, Luxembourg, Morocco, Netherlands, Norway, Panama, Peru, Sweden, United Kingdom, and Uruguay.



5

World Natural Gas Supply and Disposition

Table 24. WORLD NATURAL GAS PRODUCTION, 1980

(Billion Cubic Feet)

REGION AND COUNTRY	GROSS PRODUCTION[a]	VENTED, FLARED	REINJECTED	MARKETED PRODUCTION[a]	DRY GAS PRODUCTION[a]
NORTH AMERICA					
CANADA	3,552	59	417	3,076	2,647
MEXICO	1,299	156	NA	1,129	1,010
UNITED STATES	21,870	125	1,365	20,379	19,602
TOTAL	**26,721**	**340**	**NA**	**24,584**	**23,259**
CENTRAL AND SOUTH AMERICA					
ARGENTINA	340	NA	NA	279	279
BOLIVIA	169	7	74	89	76
COLOMBIA	161	27	15	119	114
TRINIDAD AND TOBAGO	185	NA	NA	185	185
VENEZUELA	1,252	79	584	589	517
OTHER	986	NA	NA	289	291
TOTAL	**3,093**	**NA**	**NA**	**1,550**	**1,462**
WESTERN EUROPE					
FRANCE	383	NA	NA	266	266
GERMANY, WEST	671	NA	NA	669	669
ITALY	445	NA	NA	443	430
NETHERLANDS	3,219	NA	NA	3,200	2,700
NORWAY	922	NA	NA	887	887
UNITED KINGDOM	1,500	NA	NA	1,288	1,288
OTHER	250	NA	NA	160	160
TOTAL	**7,390**	**NA**	**NA**	**6,913**	**6,400**
EASTERN EUROPE AND U.S.S.R.					
GERMANY, EAST	310	NA	NA	302	302
HUNGARY	220	NA	NA	210	210
POLAND	230	NA	NA	224	224
ROMANIA	1,246	NA	NA	1,203	1,203
U.S.S.R.	15,370	NA	NA	15,370	15,370
OTHER	38	NA	NA	70	70
TOTAL	**17,414**	**NA**	**NA**	**17,379**	**17,379**
MIDDLE EAST					
BAHRAIN	126	NA	NA	97	97
IRAN	709	334	83	292	292
IRAQ	402	339	0	62	62
KUWAIT	310	50	17	244	244
QATAR	226	42	0	184	184
SAUDI ARABIA	1,881	1,355	10	517	517
U.A.E.	525	269	0	200	200
OTHER	175	NA	NA	17	17
TOTAL	**4,358**	**NA**	**NA**	**1,613**	**1,613**
AFRICA					
ALGERIA	1,534	343	507	683	683
LIBYA	867	161	376	183	183
OTHER	141	80	NA	98	98
TOTAL	**2,542**	**584**	**NA**	**964**	**964**
FAR EAST AND OCEANIA					
AUSTRALIA	338	NA	NA	338	338
BRUNEI	316	NA	NA	316	316
CHINA	555	NA	NA	504	504
INDONESIA	1,046	235	157	653	630
PAKISTAN	290	NA	NA	286	286
OTHER	560	67	NA	371	371
TOTAL	**3,105**	**NA**	**NA**	**2,468**	**2,445**
WORLD TOTAL	**64,623**	**NA**	**NA**	**55,471**	**53,521**

NA = Not available.

[a]Natural gas statistics from foreign sources do not always differentiate whether production is gross, marketed (wet), or dry. In the absence of other clear information, the reported figure is repeated for each level of production.

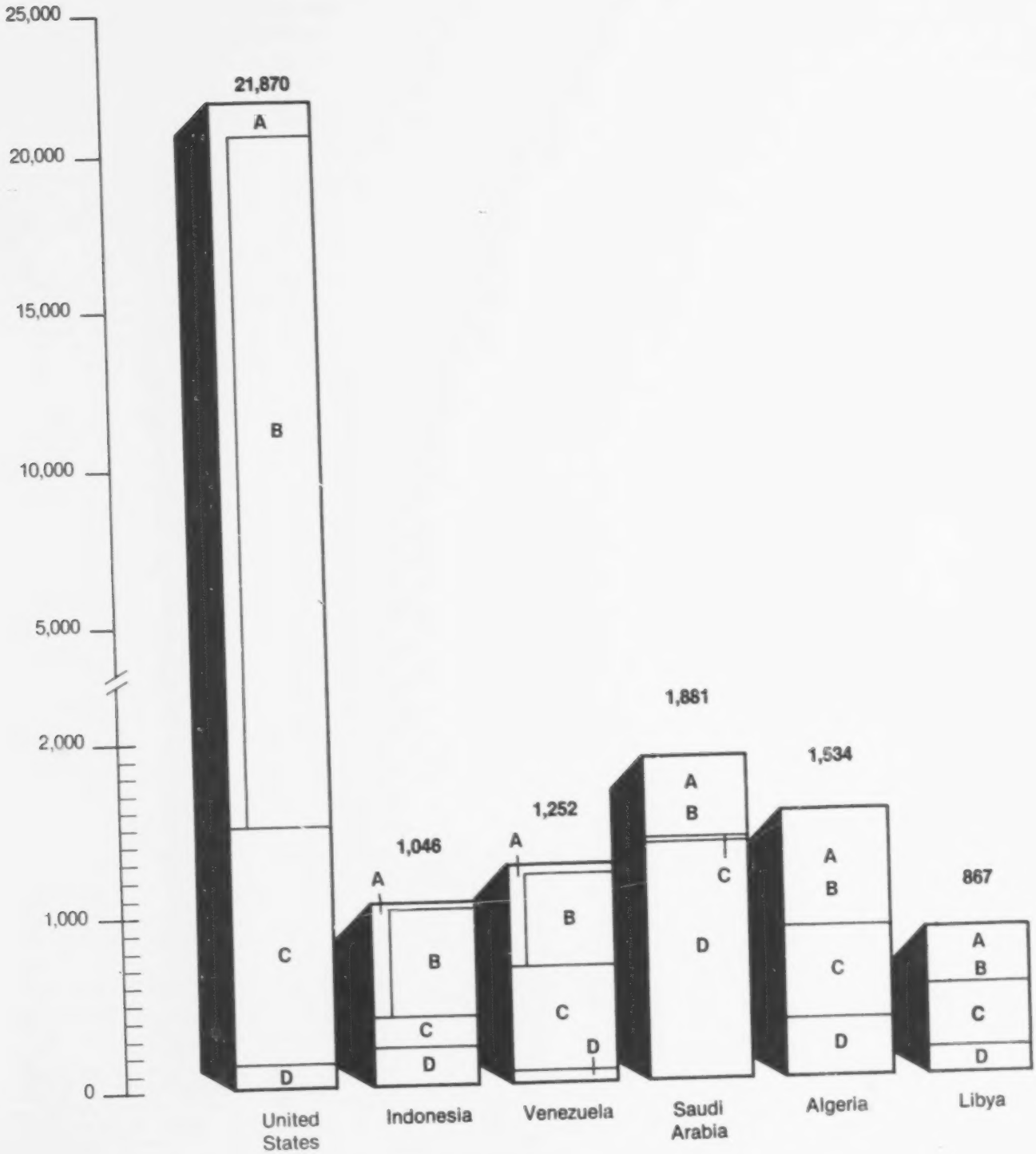
NA = Not available.

Note: Sum of components may not equal totals due to independent rounding.

Source: Refer to Appendix A.

WORLD NATURAL GAS PRODUCTION, 1980

(Billion Cubic Feet)



A Marketed Production
B Dry Gas Production
C Reinjected
D Vented, Flared

Table 25. WORLD NATURAL GAS SUPPLY AND DISPOSITION, 1980

(Billion Cubic Feet)

REGION AND COUNTRY	DRY GAS PRODUCTION	IMPORTS	EXPORTS	APPARENT CONSUMPTION
NORTH AMERICA				
CANADA	2,647	0	797	1,850
MEXICO	1,010	0	102	908
UNITED STATES	19,602	985	49	[a]19,877
TOTAL	**23,259**	**985**	**948**	22,635
CENTRAL AND SOUTH AMERICA				
ARGENTINA	279	80	0	359
BOLIVIA	76	0	80	4
COLOMBIA	114	0	0	114
TRINIDAD AND TOBAGO	185	0	0	185
VENEZUELA	517	0	0	517
OTHER	291	0	0	291
TOTAL	**1,462**	**80**	**80**	**1,470**
WESTERN EUROPE				
AUSTRIA	60	124	0	184
BELGIUM	2	491	18	475
FRANCE	266	775	6	1,035
GERMANY, WEST	669	1,526	93	2,102
ITALY	430	658	0	1,088
NETHERLANDS	2,700	195	1,960	1,035
NORWAY	887	0	1,118	431
UNITED KINGDOM	1,288	612	0	1,900
OTHER	98	247	0	345
TOTAL	**6,500**	**4,628**	3,285	8,605
EASTERN EUROPE AND U.S.S.R.				
BULGARIA	5	175	0	179
CZECHOSLOVAKIA	18	307	0	325
GERMANY, EAST	302	230	8	524
HUNGARY	210	143	0	353
POLAND	224	188	0	412
ROMANIA	1,203	55	7	1,251
U.S.S.R.	15,370	120	2,162	13,328
OTHER	48	0	0	48
TOTAL	**17,379**	**1,217**	**2,177**	**16,419**
MIDDLE EAST				
BAHRAIN	97	0	0	97
IRAN	292	0	60	232
KUWAIT	244	0	0	244
SAUDI ARABIA	517	0	0	517
OTHER	463	0	95	368
TOTAL	**1,613**	**0**	**155**	**1,458**
AFRICA				
ALGERIA	683	0	223	460
LIBYA	183	0	128	55
OTHER	98	0	0	98
TOTAL	**964**	**0**	**351**	**613**
FAR EAST AND OCEANIA				
AUSTRALIA	338	0	0	338
BRUNEI	316	0	310	6
CHINA	504	0	0	504
INDONESIA	630	0	435	195
JAPAN	78	870	0	948
PAKISTAN	286	0	0	286
OTHER	293	20	60	253
TOTAL	**2,445**	**890**	**805**	**2,530**
WORLD TOTAL	**53,521**	**7,800**	7,800	53,730

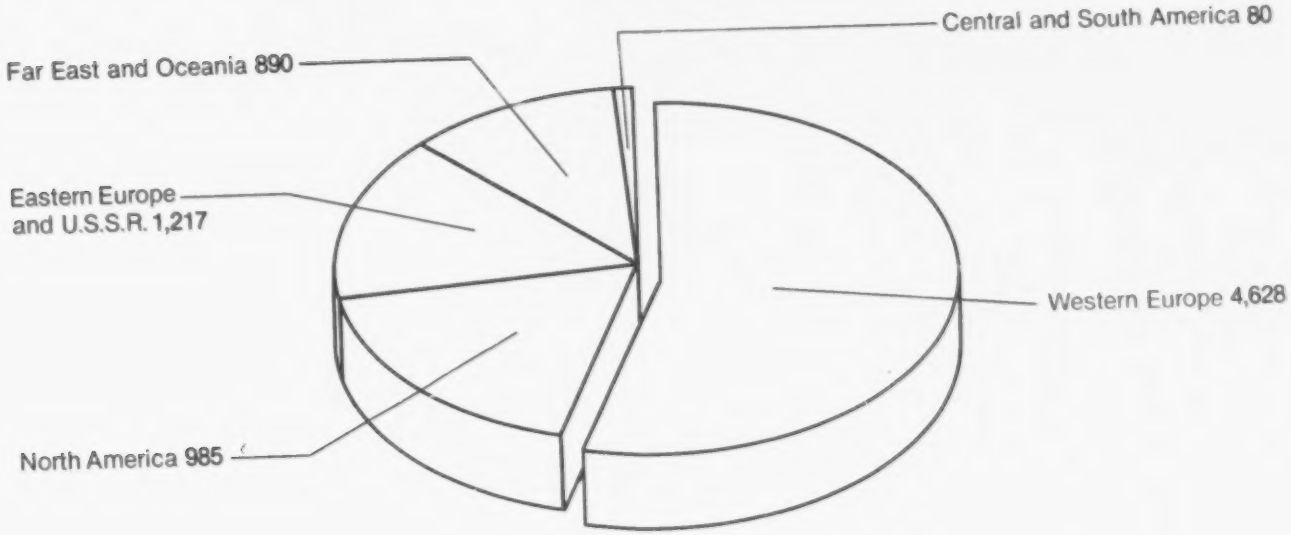
[a]Stock changes are included in Apparent Consumption.

Note: Sum of components may not equal total due to independent rounding.

Sources: Refer to Appendix A.

NATURAL GAS IMPORTS, 1980
(Billion Cubic Feet)

World Total — 7,800


Central and South America 80
Far East and Oceania 890
Eastern Europe and U.S.S.R. 1,217
Western Europe 4,628
North America 985

NATURAL GAS EXPORTS, 1980
(Billion Cubic Feet)

World Total — 7,800

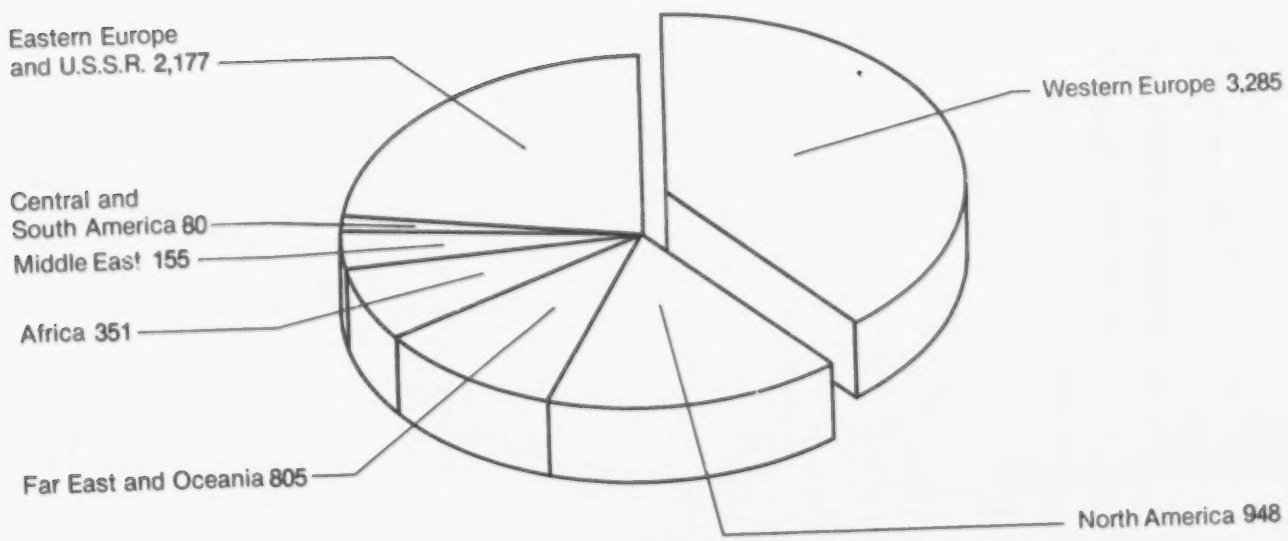


Table 26. INTERNATIONAL NATURAL GAS FLOW, 1980

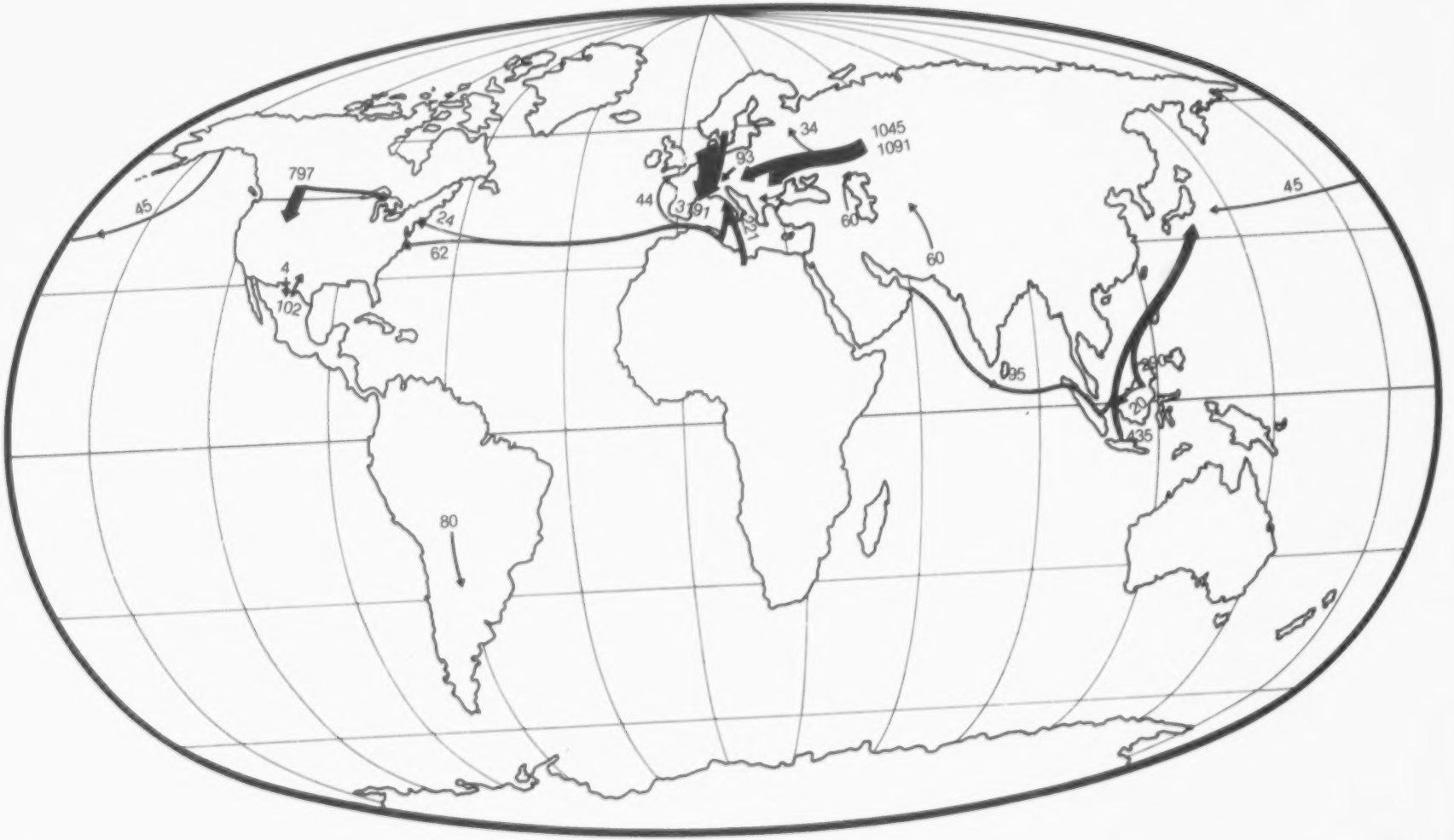
(Billion Cubic Feet)

IMPORTERS	EXPORTERS: North & South America			Western Europe				Eastern Europe		Middle East		Africa		Far East and Oceania			Total
	Canada	Mexico	Other	Germany, West	Netherlands	Norway	Other	U.S.S.R.	Other	Iran	U.A.E.	Algeria	Libya	Afghanistan	Brunei	Indonesia	
NORTH AMERICA																	
MEXICO	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	4
UNITED STATES	797	102	—	—	—	—	—	—	—	—	—	[a]86	—	—	—	—	985
CENTRAL AND SOUTH AMERICA																	
ARGENTINA	—	—	80	—	—	—	—	—	—	—	—	—	—	—	—	—	80
WESTERN EUROPE																	
AUSTRIA	—	—	—	14	—	—	—	110	—	—	—	—	—	—	—	—	124
BELGIUM/LUXEMBOURG	—	—	—	—	385	125	—	—	—	—	—	—	—	—	—	—	510
FINLAND	—	—	—	—	—	—	—	34	—	—	—	—	—	—	—	—	34
FRANCE	—	—	—	40	395	90	6	180	—	—	—	[a]65	—	—	—	—	775
GERMANY, WEST	—	—	—	—	798	340	—	380	8	—	—	—	—	—	—	—	1526
ITALY	—	—	—	—	282	—	—	304	—	—	—	—	[a]72	—	—	—	658
NETHERLANDS	—	—	—	—	—	195	—	—	—	—	—	—	—	—	—	—	195
SPAIN	—	—	—	—	—	—	—	—	—	—	—	[a]28	[a]56	—	—	—	[a]84
SWITZERLAND	—	—	—	40	—	—	7	—	—	—	—	—	—	—	—	—	47
UNITED KINGDOM	—	—	—	—	—	568	—	—	—	—	—	44	—	—	—	—	612
YUGOSLAVIA	—	—	—	—	—	—	—	63	—	—	—	—	—	—	—	—	63
EASTERN EUROPE AND THE U.S.S.R.																	
BULGARIA	—	—	—	—	—	—	—	175	—	—	—	—	—	—	—	—	175
CZECHOSLOVAKIA	—	—	—	—	—	—	—	307	—	—	—	—	—	—	—	—	307
GERMANY, EAST	—	—	—	—	—	—	—	230	—	—	—	—	—	—	—	—	230
HUNGARY	—	—	—	—	—	—	—	136	7	—	—	—	—	—	—	—	143
POLAND	—	—	—	—	—	—	—	188	—	—	—	—	—	—	—	—	188
ROMANIA	—	—	—	—	—	—	—	55	—	—	—	—	—	—	—	—	55
U.S.S.R.	—	—	—	—	—	—	—	—	—	E60	—	—	—	E60	—	—	120
FAR EAST AND OCEANIA																	
JAPAN	—	—	[a]46	—	—	—	—	—	—	—	[a]95	—	—	—	[a]290	[a]435	[a]866
MALAYSIA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	—	20
WORLD TOTAL	**797**	**102**	**129**	**93**	**1,860**	**1,318**	**13**	**2,162**	**15**	**60**	**95**	**[a]223**	**[a]128**	**60**	**310**	**435**	**7,800**

[a]Liquefied natural gas (LNG).
E = Estimated.
—Indicates data not applicable.
Note: Sum of components may not equal total due to independent rounding.

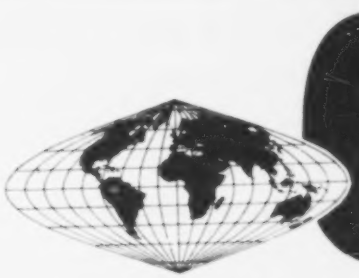
INTERNATIONAL NATURAL GAS FLOW, 1980

(Billion Cubic Feet)



Arrows Indicate Origin and Destination
But Not Necessarily Specific Routes

U.S. Department of Energy
Energy Information Administration



6

World Coal Supply and Disposition

Table 27. WORLD COAL PRODUCTION, 1980

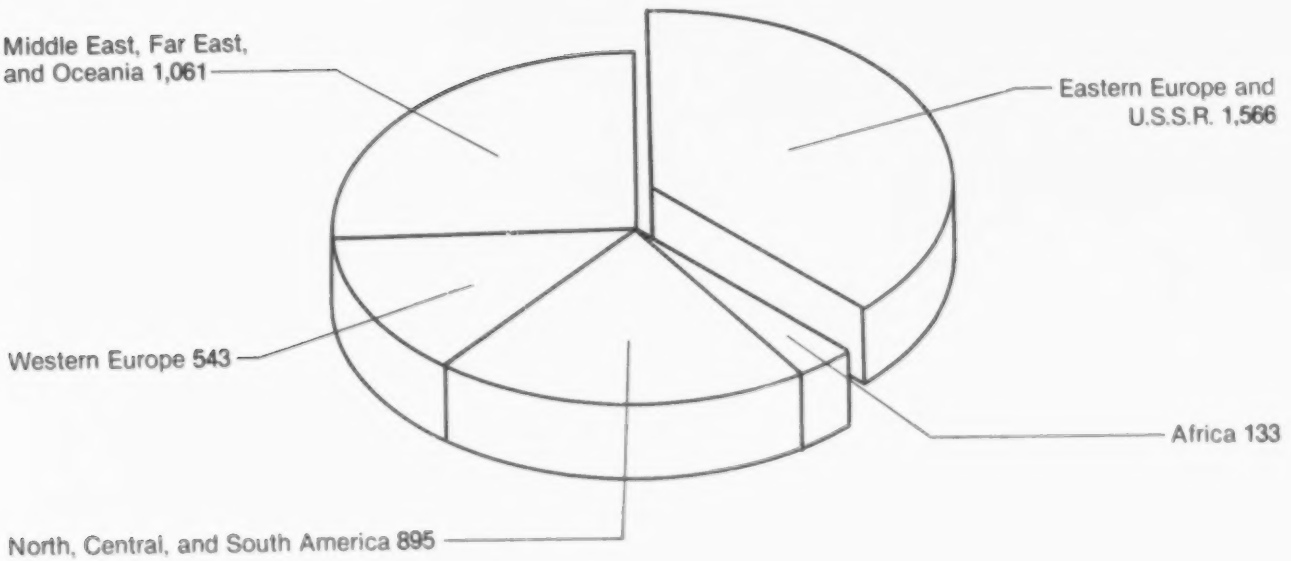
(Thousand Short Tons)

REGION AND COUNTRY	PRIMARY			SECONDARY		
	Anthracite	Bituminous Coal	Lignite	Metallurgical Coke	Anthracite & Bituminous Briquets	Lignite Briquets
NORTH, CENTRAL AND SOUTH AMERICA						
CANADA	--	33,860	6,582	5,787	--	--
UNITED STATES	6,056	[a]776,265	47,375	46,132	--	--
MEXICO	--	7,727	--	2,630	--	--
BRAZIL	--	9,150	--	4,460	--	--
CHILE	--	1,053	44	300	--	--
COLOMBIA	--	[a]5,798	--	385	--	--
OTHER	32	566	--	786	--	--
TOTAL	**6,088**	**[a]834,423**	**54,001**	**60,480**	--	--
WESTERN EUROPE						
AUSTRIA	--	--	3,158	1,862	--	--
BELGIUM	414	6,558	--	6,667	90	--
FRANCE	--	[a]19,991	2,851	24,513	2,300	--
GERMANY, WEST	--	96,062	143,116	31,409	1,604	4,900
GREECE	--	--	25,571	287	--	107
ITALY	--	--	2,130	9,039	--	--
SPAIN	4,567	9,917	17,138	4,533	34	--
TURKEY	--	4,112	14,065	2,870	--	15
UNITED KINGDOM	3,395	137,930	--	11,090	1,000	--
YUGOSLAVIA	--	428	51,383	2,375	--	--
OTHER	267	404	--	4,583	220	23
TOTAL	**8,643**	**[a]275,402**	**259,412**	**99,228**	**5,248**	**5,045**
EASTERN EUROPE AND U.S.S.R.						
ALBANIA	--	--	1,700	17	--	--
BULGARIA	--	[a]294	32,958	1,485	--	1,200
CZECHOSLOVAKIA	--	31,085	105,270	9,310	--	1,270
GERMANY, EAST	--	--	284,583	6,101	--	54,757
HUNGARY	--	3,379	24,952	742	--	1,200
POLAND	--	[a]212,879	40,638	21,213	1,500	150
ROMANIA	--	9,150	29,650	3,400	588	217
U.S.S.R.	--	[a]609,527	180,136	95,000	550	6,930
TOTAL	--	**[a]866,314**	**699,887**	**137,268**	**2,638**	**65,724**
AFRICA						
MOROCCO	750	--	--	--	10	--
SOUTH AFRICA	4,294	122,604	--	5,927	--	--
ZIMBABWE	--	3,531	--	534	--	--
OTHER	--	2,045	--	190	--	16
TOTAL	**5,044**	**128,180**	--	**6,651**	**10**	**16**
MIDDLE EAST, FAR EAST AND OCEANIA						
AUSTRALIA	--	[c]104,058	36,262	4,819	45	1,300
CHINA	38,600	645,000	--	37,535	--	--
INDIA	--	120,263	5,013	13,000	--	60
IRAN	--	750	--	450	--	--
JAPAN	9	19,871	--	52,319	490	--
NORTH KOREA	39,700	9,700	--	3,197	--	--
SOUTH KOREA	20,530	--	--	2,810	18,740	--
MONGOLIA	--	--	--	--	--	--
NEW ZEALAND	1	2,153	230	--	10	--
PAKISTAN	--	--	1,868	--	--	--
TAIWAN	--	2,837	--	250	--	--
THAILAND	--	--	1,573	--	--	--
VIETNAM	6,395	--	--	--	--	--
OTHER	--	[ab]1,098	4,750	--	--	--
TOTAL	**105,235**	**905,730**	**49,696**	**114,380**	**19,285**	**1,360**
WORLD TOTAL	**125,010**	**[ab]3,010,049**	**1,062,996**	**418,007**	**27,181**	**72,145**

[a]Includes anthracite.
[b]Includes lignite.
--Indicates data not applicable.
Sources: Refer to Appendix A.

WORLD COAL PRODUCTION, 1980
(Million Short Tons)

PRIMARY
World Total — 4,198


Middle East, Far East, and Oceania 1,061
Eastern Europe and U.S.S.R. 1,566
Western Europe 543
Africa 133
North, Central, and South America 895

SECONDARY
World Total — 517

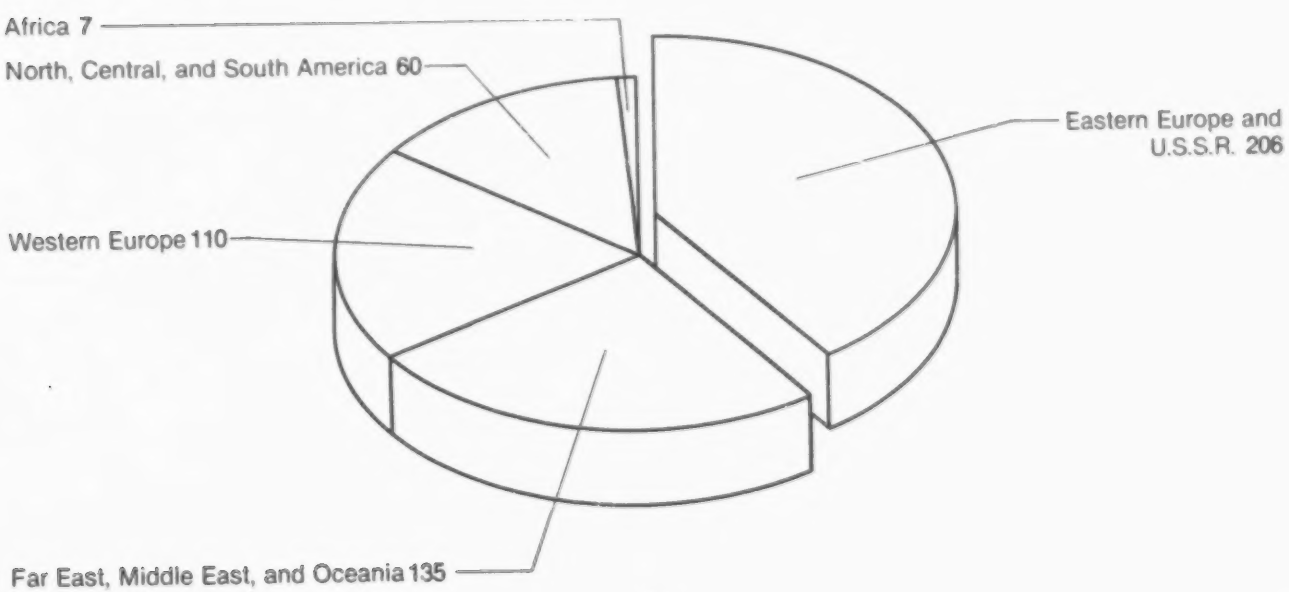

Africa 7
North, Central, and South America 60
Eastern Europe and U.S.S.R. 206
Western Europe 110
Far East, Middle East, and Oceania 135

Table 28. WORLD COAL SUPPLY AND DISPOSITION, 1980
(Trillion Btu)

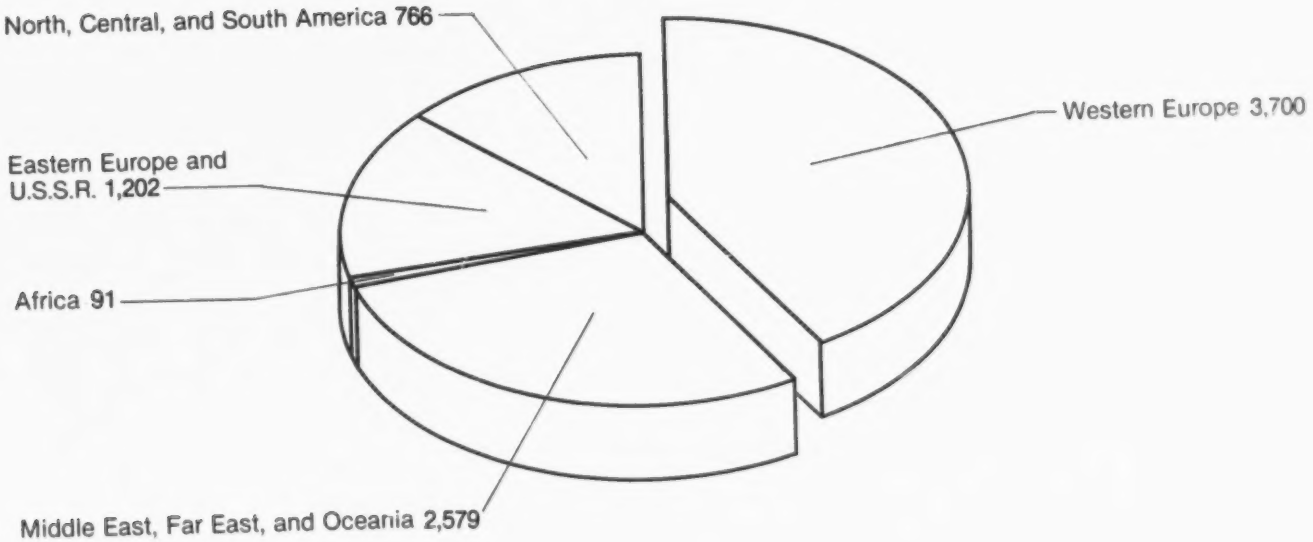
REGION AND COUNTRY	PRODUCTION	IMPORTS	EXPORTS	APPARENT CONSUMPTION
NORTH, CENTRAL AND SOUTH AMERICA				
BRAZIL	189	149	(*)	338
CANADA	855	470	455	869
COLOMBIA	146	0	3	143
UNITED STATES	139	24	0	163
MEXICO	19,209	47	2,454	[a]15,461
OTHER	34	76	6	104
TOTAL	**20,572**	**766**	**2,919**	17,078
WESTERN EUROPE				
AUSTRIA	40	112	(*)	151
BELGIUM	161	397	32	526
FINLAND	0	141	0	141
FRANCE	547	921	35	1,433
GERMANY, WEST	3,771	328	561	3,537
GREECE	122	25	0	147
ITALY	19	496	16	499
NETHERLANDS	0	316	58	258
SPAIN	530	174	(*)	704
TURKEY	221	24	(*)	244
UNITED KINGDOM	3,137	214	172	3,180
YUGOSLAVIA	550	102	11	641
OTHER	15	449	9	455
TOTAL	**9,112**	**3,700**	**894**	**11,916**
EASTERN EUROPE AND U.S.S.R.				
BULGARIA	423	205	(*)	627
CZECHOSLOVAKIA	1,853	153	170	1,836
GERMANY, EAST	2,174	312	60	2,426
HUNGARY	297	106	1	401
POLAND	5,754	31	999	4,786
ROMANIA	477	199	0	676
U.S.S.R.	13,450	188	951	12,687
OTHER	21	8	0	29
TOTAL	**24,450**	**1,202**	**2,182**	**23,470**
AFRICA				
SOUTH AFRICA	2,860	0	754	2,106
ZIMBABWE	89	0	4	85
OTHER	52	91	10	133
TOTAL	**3,001**	**91**	**768**	**2,324**
MIDDLE EAST, FAR EAST AND OCEANIA				
AUSTRALIA	3,236	(*)	1,276	1,960
CHINA	14,757	66	160	14,663
INDIA	2,205	9	4	2,210
JAPAN	451	2,080	69	2,463
KOREA, NORTH	1,248	21	2	1,268
KOREA, SOUTH	391	229	(*)	620
MONGOLIA	47	(*)	0	47
VIETNAM	161	10	58	113
OTHER	200	163	7	356
TOTAL	**22,696**	**2,579**	**1,575**	**23,700**
WORLD TOTAL	**79,831**	8,338	8,338	78,488

[a] Includes stock changes.

*Denotes less than one-half unit of measure.

WORLD COAL SUPPLY AND DISPOSITION, 1980
(Trillion Btu)

IMPORTS
World Total — 8,338


North, Central, and South America 766
Western Europe 3,700
Eastern Europe and U.S.S.R. 1,202
Africa 91
Middle East, Far East, and Oceania 2,579

EXPORTS
World Total — 8,338

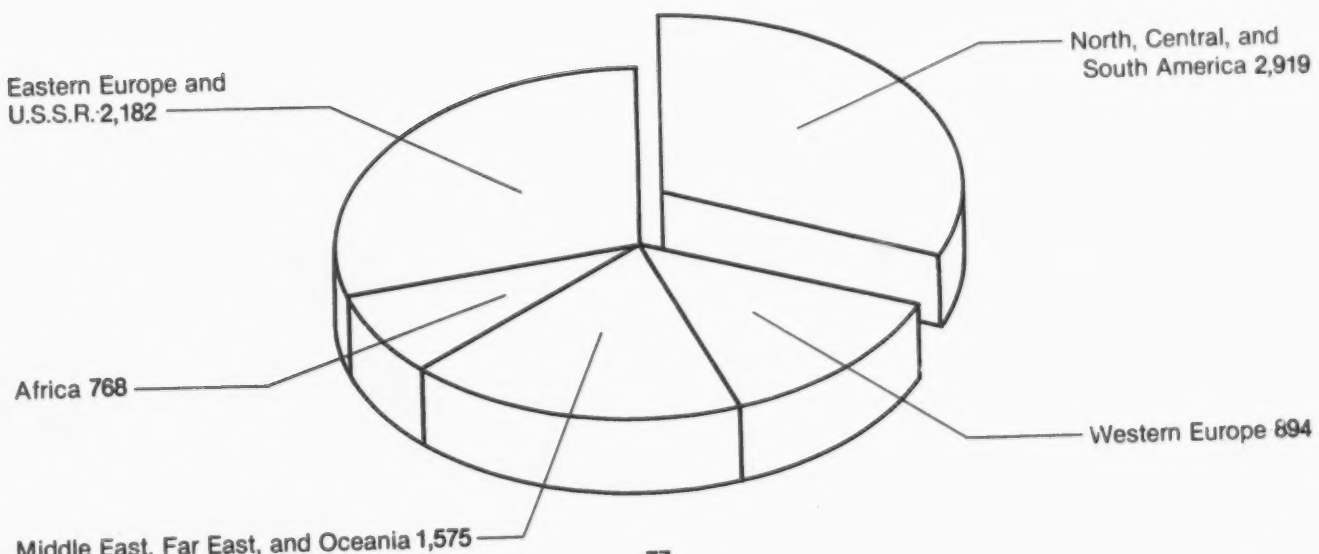

North, Central, and South America 2,919
Eastern Europe and U.S.S.R. 2,182
Africa 768
Western Europe 894
Middle East, Far East, and Oceania 1,575

Table 29. INTERNATIONAL COAL FLOW, 1980[a]

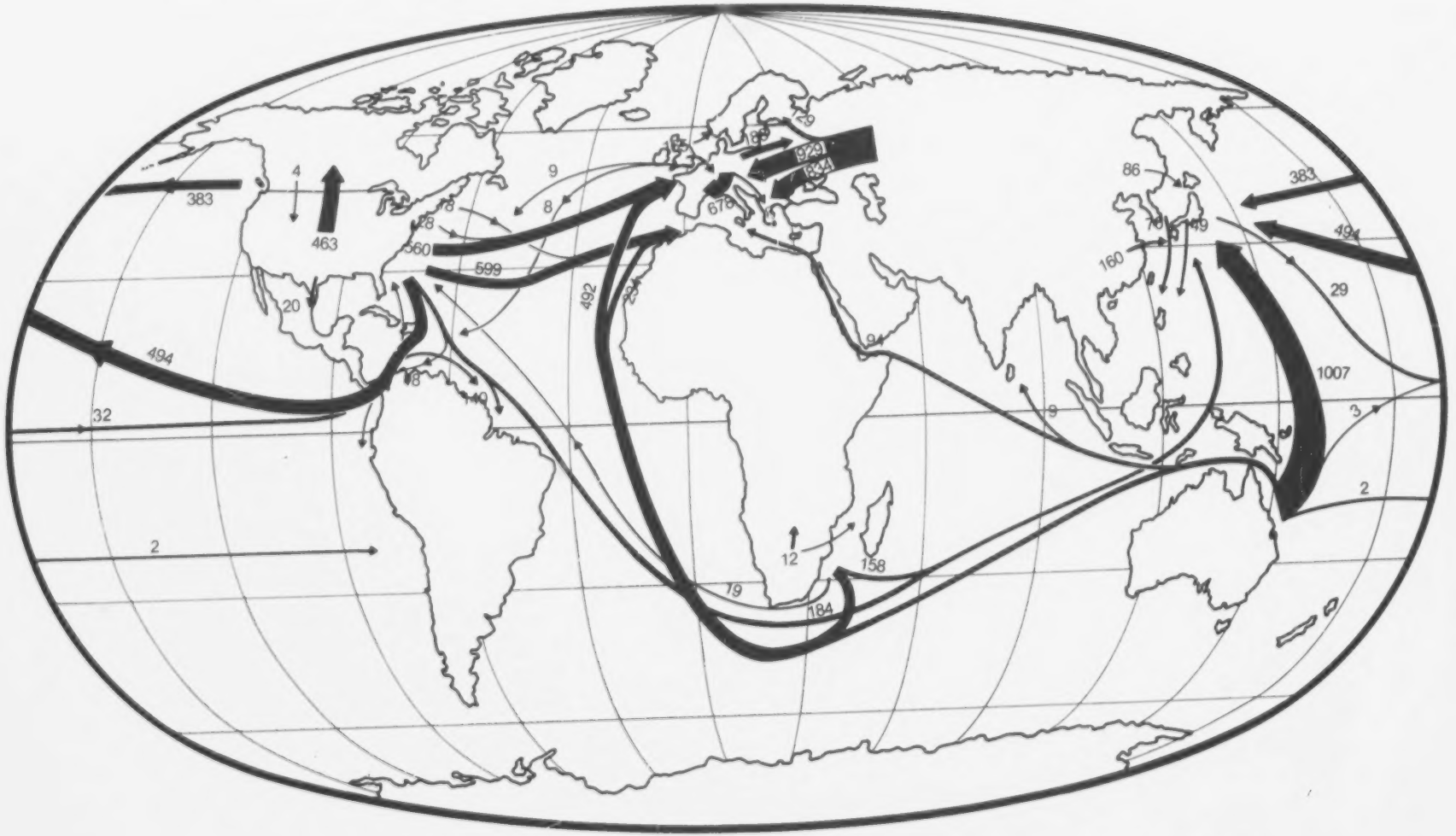
(Trillion [10^{12}] Btu)

IMPORTERS	EXPORTERS: North, Central and South America			Western Europe			Eastern Europe and U.S.S.R.			Africa		Far East and Oceania				World Total
	Canada	United States	Other	Germany, West	United Kingdom	Other	Poland	U.S.S.R.	Other	South Africa	Other	Australia	China	Japan	Other	
NORTH, CENTRAL AND SOUTH AMERICA																
BRAZIL	17	89	1	2	1	1	27	—	—	—	—	1	—	10	—	149
CANADA	—	463	—	—	—	7	—	—	—	—	—	—	—	—	—	470
OTHER	11	66	9	4	1	1	10	4	—	19	(*)	4	—	19	—	148
TOTAL	**28**	**618**	**10**	**6**	**2**	**9**	**37**	**4**	**—**	**19**	**—**	**5**	**—**	**29**	**—**	**767**
WESTERN EUROPE																
AUSTRIA	—	—	—	9	1	6	36	23	38	(*)	—	—	—	—	—	112
BELGIUM/LUXEMBOURG	1	122	—	155	9	21	17	7	1	57	—	7	1	—	—	397
DENMARK	7	41	—	2	18	2	91	14	(*)	89	—	—	—	—	—	264
FINLAND	—	7	—	—	1	5	91	38	—	—	—	—	—	—	—	141
FRANCE	1	205	(*)	230	47	18	110	24	—	244	1	40	1	—	1	921
GERMANY, WEST	15	71	—	—	46	46	58	6	34	25	—	20	6	1	—	328
ITALY	2	191	—	75	(*)	5	67	28	—	90	(*)	37	1	—	—	496
NETHERLANDS	1	125	1	57	9	2	28	(*)	5	53	—	35	—	—	—	316
SPAIN	2	92	—	2	(*)	—	32	3	1	18	—	20	2	1	—	174
UNITED KINGDOM	—	106	—	5	—	4	18	2	—	2	2	73	2	—	—	214
YUGOSLAVIA	—	27	—	(*)	(*)	—	2	53	19	—	—	—	—	—	—	102
OTHER	16	84	—	15	35	24	39	15	6	1	—	1	—	—	—	235
TOTAL	**44**	**1,070**	**1**	**550**	**166**	**133**	**589**	**213**	**105**	**578**	**3**	**233**	**13**	**2**	**1**	**3,700**
EASTERN EUROPE AND U.S.S.R.																
GERMANY, EAST	—	(*)	—	—	—	—	85	183	43	—	—	—	—	—	—	312
ROMANIA	—	41	—	—	—	4	12	104	16	—	—	9	—	12	—	200
U.S.S.R.	—	—	—	—	—	2	188	—	—	—	—	—	—	—	—	188
OTHER	—	3	—	4	—	8	73	348	65	—	—	—	—	3	—	504
TOTAL	**—**	**44**	**—**	**4**	**4**	**10**	**358**	**635**	**124**	**—**	**—**	**9**	**—**	**15**	**—**	**1,203**
MIDDLE EAST AND AFRICA																
ALGERIA	—	21	—	3	—	—	—	3	2	—	—	—	—	—	—	29
EGYPT	—	23	—	—	—	—	—	9	—	—	—	4	—	—	—	36
OTHER	—	(*)	—	—	—	6	(*)	1	—	(*)	10	10	—	(*)	—	28
TOTAL	**—**	**44**	**—**	**3**	**—**	**6**	**—**	**13**	**2**	**—**	**10**	**14**	**—**	**(*)**	**—**	**92**
FAR EAST AND OCEANIA																
JAPAN	334	619	—	(*)	—	—	12	66	—	86	—	884	61	—	17	2,080
KOREA, SOUTH	36	36	—	—	—	—	—	—	—	27	—	68	7	5	50	229
TAIWAN	5	19	—	—	—	(*)	—	—	—	42	—	51	—	3	1	121
OTHER	8	4	—	—	—	(*)	3	20	—	2	—	13	80	14	2	146
TOTAL	**383**	**678**	**—**	**(*)**	**—**	**(*)**	**15**	**86**	**—**	**157**	**—**	**1,016**	**148**	**22**	**70**	**2,576**
																8,338
WORLD TOTAL	**455**	**2,454**	**11**	**563**	**172**	**159**	**999**	**951**	**231**	**754**	**14**	**1,277**	**160**	**68**	**70**	**8,338**

[a]Includes coke and briquets.
—Indicates data not applicable.
(*) Denotes less than one half the unit of measure.
Note: Sum of components not equal total due to independent rounding.
Sources: Refer to Appendix A.

INTERNATIONAL COAL FLOW 1980

(Trillion [10^{12}] Btu)



Arrows Indicate Origin and Destination
But Not Necessarily Specific Routes

U.S. Department of Energy
Energy Information Administration

Energy Reserves

Table 30. WORLD CRUDE OIL AND NATURAL GAS RESERVES, JANUARY 1, 1982

REGION AND COUNTRY	CRUDE OIL (BILLION BARRELS)	NATURAL GAS (TRILLION CUBIC FEET)
NORTH AMERICA		
CANADA	7.3	89.9
MEXICO	57.0	75.4
UNITED STATES	29.4	201.7
TOTAL	**93.7**	**367.0**
CENTRAL AND SOUTH AMERICA		
ARGENTINA	2.7	23.4
ECUADOR	0.9	4.3
TRINIDAD AND TOBAGO	0.6	10.8
VENEZUELA	20.3	47.0
OTHER	3.6	15.5
TOTAL	**28.1**	**101.0**
WESTERN EUROPE		
GERMANY, WEST	0.3	6.2
GREECE	0.1	3.8
ITALY	0.6	3.7
NETHERLANDS	0.3	55.7
NORWAY	7.6	49.4
UNITED KINGDOM	14.8	26.0
OTHER	1.1	6.5
TOTAL	**24.8**	**151.3**
EASTERN EUROPE AND U.S.S.R.		
U.S.S.R.	63.0	1,160.0
OTHER[a]	3.0	10.3
TOTAL	**66.0**	**1,170.3**
MIDDLE EAST		
BAHRAIN	0.2	8.6
IRAN	57.0	484.0
IRAQ	29.7	27.3
KUWAIT	67.7	34.7
OMAN	2.6	2.7
QATAR	3.4	60.0
SAUDI ARABIA	167.9	118.2
SYRIA	1.9	3.2
UNITED ARAB EMIRATES	32.2	23.3
TOTAL	**362.6**	**762.0**
AFRICA		
ALGERIA	8.1	130.9
EGYPT	2.9	3.0
LIBYA	22.6	23.2
NIGERIA	16.5	40.5
TUNISIA	1.7	5.4
OTHER	4.4	8.7
TOTAL	**56.2**	**211.7**
FAR EAST AND OCEANIA		
AUSTRALIA	1.7	18.7
BANGLADESH	0	7.0
BRUNEI	1.6	7.1
CHINA	19.9	24.4
INDIA	2.7	12.4
INDONESIA	9.8	27.4
MALAYSIA	2.8	19.0
PAKISTAN	0.2	16.4
OTHER	0.3	19.6
TOTAL	**39.0**	**152.0**
WORLD TOTAL	**670.3**	**2,915.0**

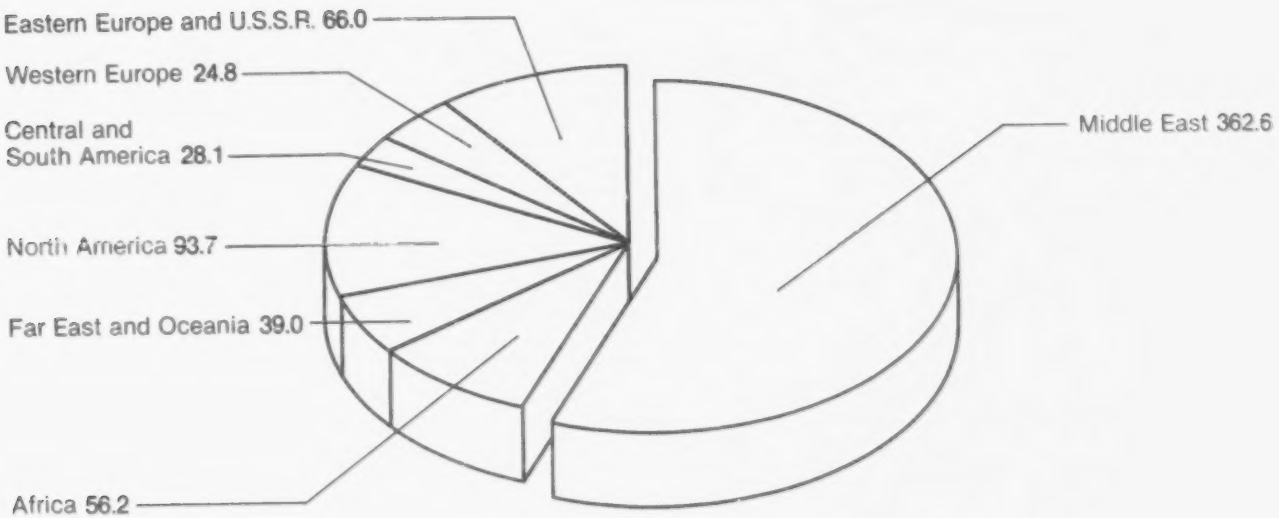
[a]Includes Albania, Bulgaria, Cuba, Czechoslovakia, East Germany, Hungary, Mongolia, North Korea, Poland, Romania, and Yugoslavia.

Note: Sum of components may not equal total due to independent rounding. All reserve figures except those for the U.S.S.R. and natural gas reserves in Canada are proved reserves recoverable with present technology and prices. U.S.S.R. figures are "explored reserves," which include proved, probable, and some possible. The Canadian natural gas figure includes proved and some probable.

Source: *Oil and Gas Journal*, December 28, 1981, pp. 86-87. The Energy Information Administration does not necessarily subscribe to the Oil and Gas Journal data but reproduces it as a matter of convenience.

WORLD CRUDE OIL RESERVES
(Billion Barrels)

World Total — 670.3



WORLD NATURAL GAS RESERVES
(Trillion Cubic Feet)

World Total — 2,915.0

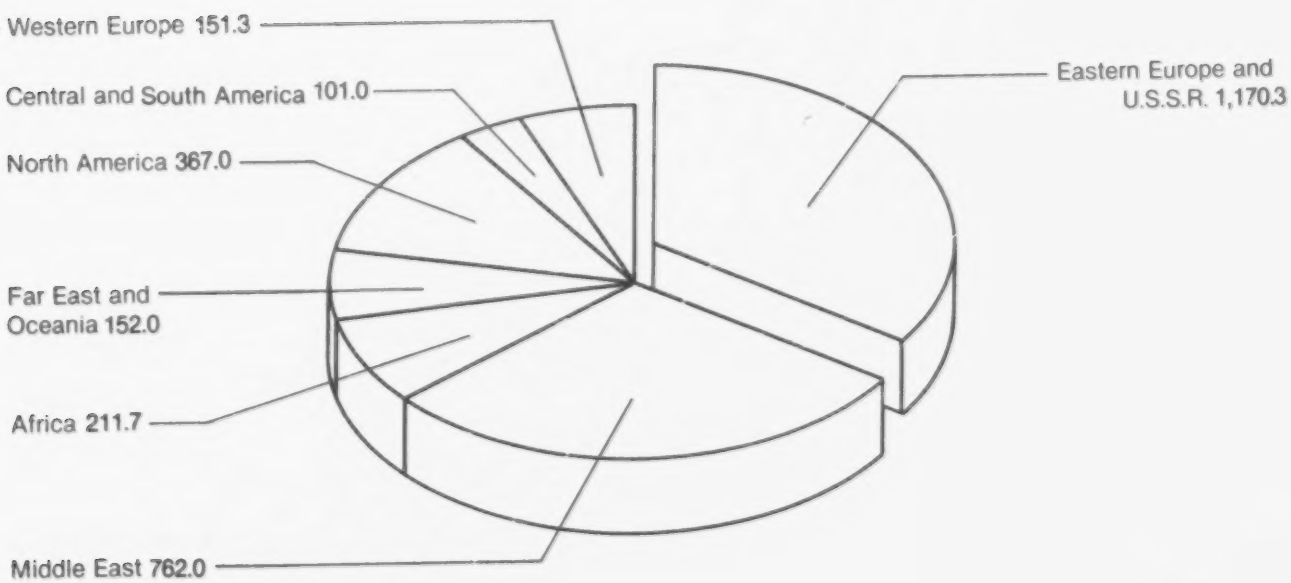


Table 31. WORLD ESTIMATED RECOVERABLE RESERVES OF COAL

(Billion Short Tons)

Region and Country	Anthracite and Bituminous Coal[a]			Lignite[b]		
	Recoverable	Portion Surface Minable	Portion of Coking Quality	Recoverable	Portion Surface Minable	Total Recoverable Coal
NORTH, CENTRAL, AND SOUTH AMERICA						
CANADA	4.18	3.82	1.40	2.33	2.33	6.51
UNITED STATES	219.20	66.41	41.35	26.90	26.90	246.10
BRAZIL	1.23	NA	0.05	0	0	1.23
CHILE	1.30	NA	NA	0	0	1.30
COLOMBIA	1.14	NA	0.20	[c]	NA	1.14
MEXICO	1.75	0.20	1.27	0	0	1.75
OTHER	0.32	0.14	NA	0	0	0.32
TOTAL	**229.11**	**NA**	**NA**	**29.23**	**NA**	**258.34**
WESTERN EUROPE						
GERMANY, WEST	26.45	0	15.87	38.75	38.75	65.19
GREECE	0	0	0	1.71	NA	1.71
TURKEY	0.20	0	0	1.90	0	2.11
UNITED KINGDOM	49.60	NA	18.35	0	0	49.60
YUGOSLAVIA	1.73	0.58	0	16.53	13.23	18.27
OTHER	1.78	[d]0.05	[d]0.49	0.66	0.60	2.44
TOTAL	**79.76**	**NA**	**NA**	**59.56**	**[d]52.57**	**139.32**
EASTERN EUROPE AND U.S.S.R.						
BULGARIA	0.03	NA	0.02	4.08	2.65	4.11
CZECHOSLOVAKIA	2.98	NA	NA	3.15	NA	6.13
GERMANY, EAST	0.11	NA	NA	27.56	27.56	27.67
HUNGARY	0.25	NA	NA	4.41	NA	4.66
POLAND	29.76	0	0	13.23	NA	42.99
ROMANIA	0.05	0	0	1.21	0	1.26
U.S.S.R.	160.94	23.92	57.32	95.90	86.31	256.84
OTHER	0	0	0	3.00	NA	3.00
TOTAL	**194.12**	**NA**	**NA**	**152.54**	**NA**	**346.66**
AFRICA						
BOTSWANA	3.86	0	0	0	0	3.86
SOUTH AFRICA	27.88	1.39	0.83	0	0	27.88
SWAZILAND	2.01	NA	0	0	0	2.01
OTHER	2.30	[d]0.57	0.51	[c]	[c]	2.30
TOTAL	**36.04**	**NA**	**1.35**	**[c]**	**[c]**	**36.04**
MIDDLE EAST, FAR EAST, AND OCEANIA						
AUSTRALIA	29.65	8.40	12.60	35.76	35.76	65.41
CHINA	109.13	109.13	40.38	[e]	[e]	109.13
INDIA	13.90	5.84	4.31	1.75	1.75	15.65
JAPAN	1.16	NA	0.60	0.02	NA	1.18
OTHER	2.52	[d]0.16	[d]0.02	0.89	0.56	3.41
TOTAL	**156.36**	**NA**	**NA**	**38.42**	**NA**	**194.76**
WORLD TOTAL	**695.38**	**NA**	**NA**	**279.74**	**NA**	**975.12**

[a]Includes subanthracite and subbituminous.

[b]Includes brown coal.

[c]Less than 5 million tons.

[d]Not all countries in this group reported under this category.

[e]May be included with anthracite and bituminous coal.

NA = Not available.

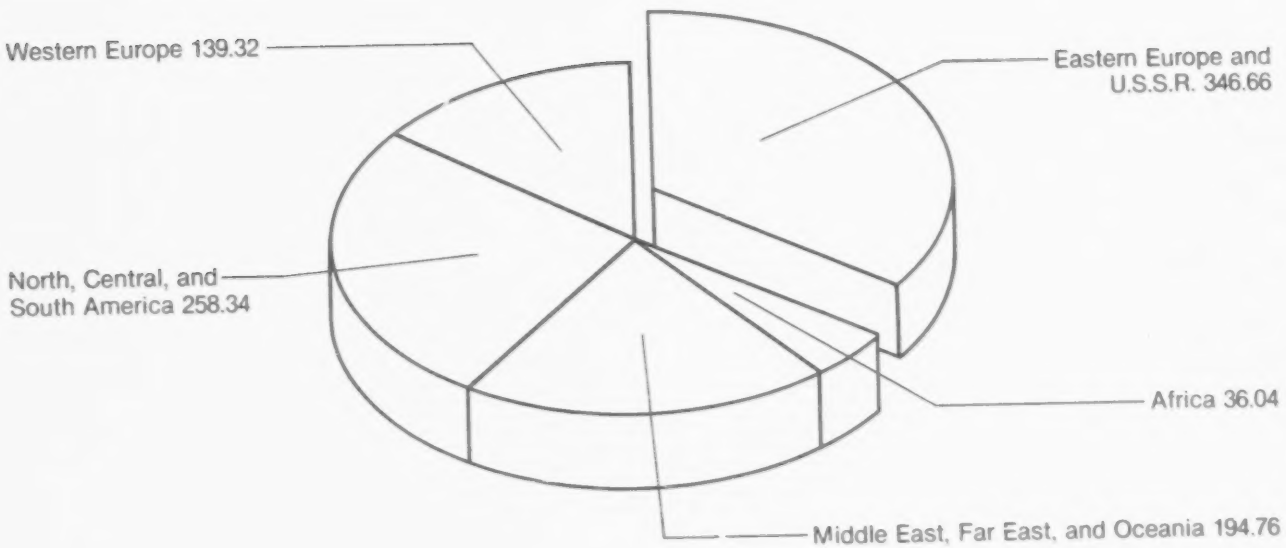
Note: Sum of components may not add due to independent rounding.

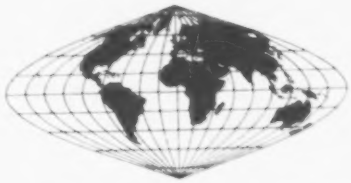
Note: The World Energy Conference has compiled these data from questionnaires submitted to National Committees of member countries or corresponding institutions of nonmember countries and from estimates based on examination of existing published sources. The reference year for most reserve data is 1979. The World Energy Conference will publish updated reserve information in September 1983.

Source: Refer to Appendix A.

WORLD ESTIMATED RECOVERABLE RESERVES OF COAL
(Billion Short Tons)

World Total — 975.12


Western Europe 139.32
Eastern Europe and U.S.S.R. 346.66
North, Central, and South America 258.34
Africa 36.04
Middle East, Far East, and Oceania 194.76



Glossary by Primary Energy Commodity

GLOSSARY

Petroleum

Asphalt. A dark brown to black solid or semi-solid material obtained from petroleum processing in which the predominate component is bitumen. Used mainly in road construction.

Aviation Gasoline. Any hydrocarbon mixture suitable for use in aviation piston-type engines.

Bunkers. Fuels supplied to ships and aircraft in international transportation, irrespective of the flag of the carrier, consisting primarily of residual, distillate, and jet fuel oils.

Crude Oil. A mixture of hydrocarbons that is in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through the surface separating facilities. Crude oil production is measured at the wellhead and includes lease condensate.

Crude Oil Refinery Input. Total crude oil (including lease condensate) input to crude oil distillation units and other processing units.

Distillate Fuel Oil. A light fuel oil distilled off during the refining process. Included are products known as No. 1 and No. 2 heating oils, diesel fuels, and No. 4 fuel oil, which conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel), and electric power generation.

Jet Fuel. Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or meeting ASTM Specification D1655. Although most jet fuel is used in aircraft, some is used for other purposes, such as fuel for turbines to produce electricity.

Kerosene. Light hydrocarbon distillates in the 150° to 280° Centigrade (300° to 550° Fahrenheit) distillation range. Includes vaporizing oil for use in reciprocating engines (primarily tractors), lamp oil, and kerosene heating oil.

Lease Condensate. A liquid recovered from natural gas at the well or at small gas/oil separators in the field. Consists primarily of pentanes and heavier hydrocarbons. Also called field condensate.

LPG. Liquefied petroleum gas. Consists mainly of propane and butane or a mixture of these and is used as both a fuel and a solvent. Data for LPG from natural gas liquid processing plants are presented under natural gas plant liquids.

Lubricants. All grades of lubricating oils and grease from spindle oil to cylinder oil, including basestocks for making finished lubricating oil and grease. Do not include specialty oils, such as absorption oil, insulating oils, spray oils for pesticides, medicinal oils, etc.

Motor Gasoline. A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark ignition engines. Included are leaded and unleaded products and all refinery products listed in ASTM Specification D439.

Naphthas. Refined or partly refined light distillates with an approximate boiling point range of 27° to 221° Centigrade. Blended further or mixed with other materials, they make high-grade motor gasoline or jet fuel. Also used as raw materials for the production of town gas or as feedstocks used to make various types of chemical products; also used as various kinds of solvents.

Natural Asphalt. A native mineral pitch, tar, or bitumen composed principally of hydrocarbons, a natural bituminous rock of dark color comparatively hard and nonvolatile. Does not include asphalt, bitumen, tar, etc., derived from petroleum processing.

Natural Gas Liquids. Those portions of reservoir gas which are liquefied at the surface in lease separators, field facilities, or natural gas processing plants. Natural gas liquids include natural gas plant liquids and lease condensate.

Natural Gas Plant Liquids. Products obtained from processing natural gas at natural gas processing plants, including natural gasoline plants, cycling plants, and fractionators. Products obtained include ethane, liquefied

petroleum gases (propanes, butane, propane-butane mixtures, and ethane-propane mixtures), isopentane, natural gasoline, unfractionated streams, plant condensate, and other minor quantities of finished products, such as motor gasoline, special naphthas, jet fuel, kerosene, and distillate fuel oil.

Petrochemical Feedstocks. Products from petroleum refineries and natural gas liquids processing plants to be processed further at a petrochemical plant. Include products primarily in the naphtha range, still gas (refinery gas), and liquefied gases for petrochemical use.

Petroleum. A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, refined petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke. A solid residue; the final product of the condensation process in cracking. Includes green or calcined petroleum coke and coke deposited on catalysts.

Petroleum Jelly and Paraffin Wax. Include petrolatum, a semisolid oily product produced from de-waxing lubricating oil basestocks. They consist of microcrystalline wax and oils and paraffin wax removed from distillates, whether crude scale or refined.

Petroleum Products. Products obtained from the processing of crude oil, unfinished oils, natural gas liquids, and other miscellaneous hydrocarbon compounds. Include aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, ethane, liquefied petroleum gases, petrochemical feedstocks, special naphthas, lubricants, paraffin wax, petroleum coke, asphalt roal oil, still gas, and other miscellaneous products.

Plant Condensate. Mixtures of hydrocarbons, mostly pentanes and heavier hydrocarbons, recovered at natural gas liquids processing plants. Does not include field or lease condensate.

Refinery Gas. Comprises noncondensable gas collected in petroleum refineries.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as No. 5 and No. 6 fuel oil that conform to ASTM Specification D396, heavy diesel oil, Navy Special Fuel Oil, Bunker C fuel oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

White Spirit. A highly refined distillate with a boiling point range of about 150° to 200° Centigrade. It is used as a paint solvent and for dry-cleaning purposes.

Natural Gas

Associated Gas. Gas produced in a field containing both oil and gas.

Dry Production. Gross withdrawals of natural gas from reservoirs less gas used for reinjection into reservoirs for repressuring, gas which is flared or vented, gas lost in transmission, and shrinkage. Derived by subtracting shrinkage or extraction loss from marketed production. It represents the amount of natural gas that can be marketed and consumed as a gas.

Gross Production. Gross withdrawals of natural gas from reservoirs.

Liquefied Natural Gas (LNG). Methane (CH_4) and possibly ethane (C_2H_6) which has been cryogenically liquefied.

Marketed Production. Gross withdrawals of natural gas from reservoirs less gas used for reinjection into reservoirs for repressuring, gas which is flared and/or vented, and gas which is lost in transmission before the natural gas liquids have been extracted (shrinkage or extraction loss).

Natural Gas. A mixture of hydrocarbon compounds, primarily methane and small quantities of various nonhydrocarbons existing in gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.

Reinjected. The forcing of gas under pressure into the oil reservoir in an attempt to increase the recovery of crude oil.

Shrinkage. The volume of natural gas that is transformed into liquid products during processing, primarily at natural gas liquid processing plants, i.e., extraction loss.

Vented/Flared. The release (venting) or burning (flaring) of associated gas as a means of disposal.

Waste. Natural gas lost in transmission.

Coal

Anthracite. A hard, black lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal. Includes meta-anthracite and semianthracite. Conforms to ASTM Specification D388 for anthracite.

Bituminous Coal. A coal which is high in carbonaceous matter, having a volatility greater than that of anthracite coal and a calorific value greater than that of lignite. Often referred to in the United States as soft coal. Includes subbituminous coal and conforms to ASTM Specification D388 for bituminous and subbituminous coal.

Coal. Includes anthracite, subanthracite, bituminous, subbituminous, lignite, and brown coal.

Coal Briquets. Bituminous coal and lignite briquets comprise the secondary solid fuels manufactured from bituminous coal and lignite by a process in which the coal is partly dried, warmed to expel excess moisture, and then compressed into briquets, usually without the use of a binding substance. In the reduction of briquets to coal equivalent, different conversion factors are applied according to their origin from hard coal, peat, brown coal, or lignite.

Coke (Coal). Bituminous coal from which constituents have been driven off by heat so that the fixed carbon and the ash are fused together. Used primarily in blast furnaces for smelting ores, especially iron ore.

Lignite. A brownish-black coal of low rank with high inherent moisture and volatile matter. Also referred to as brown coal, conforms to ASTM Specification D388 for lignite, and is used almost exclusively for electric power generation.

Production. The sum of sales, mine consumption, issues to miners, and issues to coking, briquetting, and other ancillary plants at mines. Production data include quantities extracted from surface and underground working, and normally exclude wastes removed at mines or associated preparation plants.

Hydroelectric Power

Hydroelectric Power Production. Includes electric utility and industrial production of hydroelectricity, unless otherwise specified. Production is reported on a net basis, i.e., on the amount of electric energy produced after the electric energy consumed by station auxiliaries and the losses in the transformers that are considered integral parts of the station are deducted.

Nuclear Electric Power

Nuclear Electric Power Production. Electricity produced by nuclear reactors of various types such as heavy water, light water, and boiling water. Production is reported on a net basis and excludes energy that is generally used by the electric powerplant for its own operating purposes and not for commercial use.

Appendixes

Appendix A
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Appendix B

COUNTRIES, DEPENDENCIES, AND AREAS OF SPECIAL SOVEREIGNTY INCLUDED IN EACH GEOGRAPHIC REGION

North America

Bermuda
Canada
Greenland
Mexico
St. Pierre Miguelon
United States

Central and South America

Antartic Fisheries
Antiqua
Argentina
Bahama Islands
Barbados
Barbuda
Belize
Bolivia
Brazil
British Virgin Islands
Cayman Islands
Chile
Colombia
Costa Rica
Cuba
Dominica
Dominican Republic
Ecuador
El Salvador
Falkland Islands
French Guiana
Grenada
Guadeloupe
Guatemala
Guyana
Haiti
Honduras
Jamaica
Martinique
Montserrat
Netherlands Antilles
Nicaragua
Panama Republic
Paraguay
Peru
Puerto Rico
St. Kitts-Nevis
St. Lucia
St. Vincent and the Grenadines
Surinam
Trinidad and Tobago
Uruguay
Venezuela
Virgin Islands

Western Europe

Austria
Belgium
Denmark
Faeroe Islands
Finland
France
Gibraltar
Germany, West
Greece
Iceland
Ireland
Italy
Luxembourg
Malta
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom
Yugoslavia

Eastern Europe and U.S.S.R.

Albania
Bulgaria
Czechoslovakia
Germany, East
Hungary
Poland
Romania
U.S.S.R.

Middle East

Bahrain
Cyprus
Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman
Qatar
Saudi Arabia
Syria
United Arab Emirates
(Incl. Abu Dhabi,
Ajman, Dubai, Fujairah,
Ras al-Khaimah,
Sharjah, and
Umm al-Qaiwain)
Yemen (Sana)
Yemen (Aden)

Africa

Afghanistan
American Samoa
Australia
Botswana
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Congo
Dahomey
Djibouti
Egypt
Equatorial Guinea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Ivory Coast
Kenya
Lesotho
Liberia
Libya
Madagascar
Malawi
Mali
Mauritania
Mauritius
Morocco
Mozambique
Namibia
Niger
Nigeria
Reunion
Rwanda
Sadtome and Principé
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Sudan
Swaziland
Tanzania
Togo
Tunisia
Uganda
Upper Volta
Western Sahara
Zaire
Zambia
Zimbabwe

Far East and Oceania

American Samoa
Afghanistan
Australia
Bangladesh
Bhutan
Brunei
Burma
Cook Island
China
Fiji
French Polynesia
Guam
Hong Kong
India
Indonesia
Japan
Kampuchea
Kiribatia
Korea, North
Korea, South
Laos
Macau
Malaysia
Mongolia
Nauru
Nepal
New Caledonia
New Zealand
Pacific Islands
Pakistan
Papua New Guinea
Philippines
Samoa
Singapore
Solomon Islands
Sri Lanka
Taiwan
Thailand
Tonga
Tuvalu
Vanuatu
Vietnam
Wake Island

Appendix C

VOLUME AND WEIGHT CONVERSIONS

Conversion Factors for Refined Products

Refined Product	Barrels per Metric Ton
Asphalt	6.06
Aviation Gasoline	8.90
Distillate Fuel Oil	7.46
Greases	6.30
Jet Fuel	8.00
Kerosene	7.75
Liquefied Petroleum Gas (LPG)	11.60
Lubricants	7.00
Motor Gasoline	8.50
Natural Gasoline	10.00
Natural Gas Liquids (NGL)	10.40
Naphthas	8.50
Paraffin Oil	7.14
Paraffin Wax	7.87
Petrolatum	7.87
Petroleum Coke	5.50
Residual Fuel Oil	6.66
White Spirits	8.50
Miscellaneous Products	8.04

Liquid Fuels

42 U.S. gallons = 1 barrel
1 cubic meter = 6.289 barrels
159 liters = 1 barrel

Gaseous Fuels

35.31467 cubic feet = 1 cubic meter

Solid Fuels

1 long ton = 1.12 short tons
1 metric ton = 1.10 short tons

Barrels of Crude Oil per Metric Ton

	1973	1974	1975	1976	1977	1978	1979	1980	1981
North America									
Canada	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453
Mexico	7.108	7.108	7.108	7.108	7.108	7.108	7.108	7.108	7.108
United States	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330
Central and South America									
Argentina	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124
Barbados	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Bolivia	7.881	7.881	7.881	7.881	7.881	7.881	7.881	7.881	7.881
Brazil	7.533	7.533	7.533	7.533	7.533	7.533	7.533	7.533	7.533
Chile	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Colombia	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084
Cuba	7.152	7.152	7.152	7.152	7.152	7.152	7.152	7.152	7.152
Ecuador	7.162	7.211	7.208	7.208	7.212	7.327	7.327	7.327	7.327
Guatemala	7.210	7.210	7.210	7.210	7.210	7.210	7.210	7.210	7.210
Peru	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Trinidad and Tobago	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084
Venezuela	6.990	6.972	7.011	7.003	6.986	6.972	6.972	6.972	6.972
Western Europe									
Austria	7.006	7.006	7.006	7.006	7.006	7.006	7.006	7.006	7.006
Denmark	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689
France	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Germany, West	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247
Italy	6.853	6.853	6.853	6.853	6.853	6.853	6.853	6.853	6.853
Netherlands	6.853	6.853	6.853	6.853	6.853	6.853	6.853	6.853	6.853
Norway	7.462	7.462	7.462	7.462	7.462	7.462	7.462	7.462	7.462
Spain	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Turkey	7.165	7.165	7.165	7.165	7.165	7.165	7.165	7.165	7.165
United Kingdom	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Yugoslavia	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Eastern Europe and U.S.S.R.									
Albania	6.672	6.672	6.672	6.672	6.672	6.672	6.672	6.672	6.672
Bulgaria	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Czechoslovakia	6.780	6.780	6.780	6.780	6.780	6.780	6.780	6.780	6.780
Germany, East	7.223	7.223	7.223	7.223	7.223	7.223	7.223	7.223	7.223
Hungary	6.780	6.780	6.780	6.780	6.780	6.780	6.780	6.780	6.780
Poland	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Romania	7.560	7.560	7.560	7.560	7.560	7.560	7.560	7.560	7.560
U.S.S.R.	7.289	7.289	7.289	7.289	7.289	7.289	7.289	7.289	7.289

Barrels of Crude Oil per Metric Ton (Continued)

	1973	1974	1975	1976	1977	1978	1979	1980	1981
Middle East									
Bahrain	7.349	7.349	7.349	7.349	7.349	7.349	7.349	7.349	7.349
Iran	7.311	7.307	7.305	7.300	7.314	7.407	7.407	7.407	7.407
Iraq	7.409	7.436	7.436	7.400	7.440	7.573	7.573	7.573	7.573
Israel	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247
Kuwait	7.237	7.236	7.258	6.269	7.277	7.369	7.266	7.266	7.266
Oman	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Qatar	7.572	7.573	7.543	7.581	7.579	7.668	7.668	7.668	7.668
Saudi Arabia	7.363	7.350	7,325	7.381	7.266	7.428	7.428	7.428	7.428
Syria	6.959	6.959	6,959	6.959	6.959	6.959	6.959	6.959	6.959
United Arab Emirates	7.550	7.559	7.556	7.444	7.523	7.534	7.534	7.534	7.534
Africa									
Algeria	7.891	7.846	7.817	7.814	7.864	7.853	7.853	7.853	7.853
Angola	7.409	7.409	7.409	7.409	7.409	7.409	7.409	7.409	7.409
Cameroon	7.289	7.289	7.289	7.289	7.289	7.289	7.289	7.289	7.289
Congo	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Egypt	7.256	7.256	7.256	7.256	7.256	7.256	7.256	7.256	7.256
Gabon	7.275	7.227	7.159	7.222	7.218	7.328	7.328	7.328	7.328
Libya	7.575	7.565	7.561	7.575	7.516	7.718	7.718	7.718	7.718
Morocco	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600
Nigeria	7.317	7.374	7.372	7.350	7.397	7.515	7.515	7.515	7.515
Tunisia	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689
Zaire	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Far East and Oceania									
Australia	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453
Burma	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084
China	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
India	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600
Indonesia	7.392	7.432	7.437	7.423	7.423	7.559	7.559	7.558	7.558
Japan	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Mongolia	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Malaysia and Brunei	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689
New Zealand	7.563	7.563	7.563	7.563	7.563	7.563	7.563	7.563	7.563
Pakistan	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Taiwan	6.568	6.568	6.568	6.568	6.568	6.568	6.568	6.568	6.568
Other	7.300	7.300	7.300	7.300	7.300	7.300	7.300	7.300	7.300

Appendix D

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE

Region Country Year	Crude Oil	Natural Gas Liquids	Natural Gas (Dry)	Coal	Electric Power (Btu per kilowatt-hour)	
	(thousand Btu per barrel)		(Btu per cubic foot)	(thousand Btu per short ton)	Hydro	Nuclear
North America						
Canada						
1973	5,810	4,348	999	23,042	10,400	11,686
1974	5,810	4,348	999	23,260	10,400	11,686
1975	5,810	4,348	999	23,313	10,400	11,686
1976	5,810	4,348	999	23,146	10,400	11,686
1977	5,810	4,348	999	22,858	10,400	11,701
1978	5,810	4,348	999	23,218	10,400	11,705
1979	5,810	4,348	999	21,232	10,400	11,708
1980-1981	5,810	4,348	999	21,129	10,400	11,708
Mexico						
1973-1981	6,010	4,348	963	17,985	10,400	[a]
United States						
1973	5,800	4,049	1,021	24,001	10,389	10,903
1974	5,800	4,011	1,024	23,717	10,442	11,161
1975	5,800	3,984	1,021	23,202	10,406	11,013
1976	5,800	3,964	1,020	23,146	10,373	11,047
1977	5,800	3,941	1,021	22,704	10,435	10,769
1978	5,800	3,925	1,019	22,438	10,361	10,941
1979	5,800	3,955	1,021	22,597	10,353	10,640
1980	5,800	3,914	1,026	23,152	10,353	10,640
1981	5,800	3,914	1,026	23,151	10,353	10,640
Central and South America						
Argentina						
1973-1981	6,001	4,348	932	21,235	10,400	11,645
Barbados						
1973-1981	5,879	[a]	1,047	[a]	[a]	[a]
Bolivia						
1973-1981	5,574	4,348	932	[a]	10,400	[a]
Brazil						
1973-1981	5,765	4,348	1,033	20,650	10,400	[a]
Chile						
1973-1978	5,780	4,348	999	25,200	10,400	[a]
1979	5,780	4,348	999	24,508	10,400	[a]
1981	5,780	4,348	999	24,433	10,400	[a]
Colombia						
1973-1981	6,023	4,348	1,145	25,190	10,400	[a]
Costa Rica						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Cuba						
1973-1981	5,985	4,348	1,047	[a]	10,400	[a]
Dominican Republic						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Ecuador						
1973	5,985	4,348	1,299	[a]	10,400	[a]
1974-1977	5,937	4,348	1,299	[a]	10,400	[a]
1978-1979	5,888	4,348	1,299	[a]	10,400	[a]
1979-1981	5,888	4,348	1,299	[a]	10,400	[a]
El Salvador						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Guatemala						
1973-1981	5,948	[a]	[a]	[a]	10,400	[a]
Haiti						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE (Continued)

Region Country Year	Crude Oil (thousand Btu per barrel)	Natural Gas Liquids (thousand Btu per barrel)	Natural Gas (Dry) (Btu per cubic foot)	Coal (thousand Btu per short ton)	Electric Power (Btu per kilowatt-hour) Hydro	Electric Power (Btu per kilowatt-hour) Nuclear
Central and South America (continued)						
Honduras						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Jamaica						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Nicaragua						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Panama Republic						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Paraguay						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Peru						
1973-1981	5,831	4,348	999	25,190	10,400	[a]
Puerto Rico						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Surinam						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Trinidad and Tobago						
1973-1981	6,023	4,348	1,047	[a]	[a]	[a]
Uruguay						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Venezuela						
1973-1976	6,079	4,348	1,139	25,190	10,400	[a]
1977	6,125	4,348	1,139	25,190	10,400	[a]
1978-1981	6,079	4,348	1,139	25,190	10,400	[a]
Western Europe						
Austria						
1973-1981	6,069	4,348	1,097	12,600	10,400	[a]
Belgium and Luxembourg						
1973-1981	[a]	[a]	943	23,023	10,400	10,392
Denmark						
1973-1981	5,677	[a]	[a]	[a]	10,400	[a]
Finland						
1973-1976	[a]	[a]	[a]	[a]	10,400	[a]
1977-1978	[a]	[a]	[a]	[a]	10,400	10,596
1979	[a]	[a]	[a]	[a]	10,400	10,468
1980-1981	[a]	[a]	[a]	[a]	10,400	10,365
France						
1973	5,879	4,348	1,022	24,220	10,400	13,176
1974	5,879	4,348	1,022	24,116	10,400	12,608
1975	5,879	4,348	1,022	23,945	10,400	12,608
1976	5,879	4,348	1,022	23,940	10,400	12,608
1977	5,879	4,348	1,022	23,983	10,400	12,360
1978	5,879	4,348	1,022	24,042	10,400	12,005
1979	5,879	4,348	1,022	24,017	10,400	11,685
1980	5,879	4,348	899	23,942	10,400	11,344
1981	5,879	4,348	899	23,942	10,400	11,055
Germany, West						
1973	5,927	[a]	943	15,509	10,400	10,840
1974	5,927	[a]	943	15,136	10,400	10,840
1975	5,927	[a]	943	15,113	10,400	10,759
1976	5,927	[a]	943	14,957	10,400	10,721
1977	5,927	[a]	943	15,490	10,400	10,598
1978	5,927	[a]	943	15,410	10,400	10,542
1979	5,927	[a]	943	15,693	10,400	10,528
1980	5,927	[a]	943	15,767	10,400	10,494
1981	5,927	[a]	943	15,767	10,400	10,494
Greece						
1973-1981	[a]	[a]	[a]	4,788	10,400	[a]
Iceland						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Ireland						
1973-1981	[a]	[a]	[a]	25,190	10,400	[a]
Italy						
1973	6,158	4,348	1,028	9,133	10,400	12,587
1974-1976	6,158	4,348	1,028	9,100	10,400	12,587
1977	6,158	4,348	1,028	9,072	10,400	12,587
1978-1981	6,158	4,348	1,028	9,068	10,400	12,131

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE (Continued)

Region Country Year	Crude Oil (thousand Btu per barrel)	Natural Gas Liquids (thousand Btu per barrel)	Natural Gas (Dry) (Btu per cubic foot)	Coal (thousand Btu per short ton)	Electric Power (Btu per kilowatt-hour) Hydro	Electric Power (Btu per kilowatt-hour) Nuclear
Western Europe (continued)						
Netherlands						
1973-1974	6,158	4,348	951	25,200	[a]	10,548
1975-1981	6,158	4,348	951	[a]	[a]	10,548
Norway						
1973-1981	5,805	4,348	1,139	24,106	10,400	[a]
Portugal						
1973-1981	[a]	[a]	[a]	25,190	10,400	[a]
Spain						
1973	5,780	4,348	1,047	19,564	10,400	11,307
1974	5,780	4,348	1,047	19,685	10,400	11,307
1975	5,780	4,348	1,047	19,473	10,400	11,307
1976	5,780	4,348	1,047	19,096	10,400	11,307
1977	5,780	4,348	1,047	18,654	10,400	11,307
1978	5,780	4,348	1,047	17,895	10,400	11,307
1979	5,780	4,348	1,047	17,324	10,400	11,307
1980	5,780	4,348	1,047	16,750	10,400	11,307
1981	5,780	4,348	1,047	16,750	10,400	11,146
Sweden						
1973	[a]	[a]	[a]	[a]	10,400	10,035
1974	[a]	[a]	[a]	[a]	10,400	10,035
1975	[a]	[a]	[a]	[a]	10,400	10,287
1976	[a]	[a]	[a]	23,401	10,400	10,287
1977-1980	[a]	[a]	[a]	23,401	10,400	10,270
1981	[a]	[a]	[a]	23,401	10,400	10,039
Switzerland						
1973-1978	[a]	[a]	[a]	[a]	10,400	10,608
1979-1981	[a]	[a]	[a]	[a]	10,400	10,556
Turkey						
1973	5,976	[a]	1,047	15,340	10,400	[a]
1974	5,976	[a]	1,047	16,190	10,400	[a]
1975	5,976	[a]	1,047	15,537	10,400	[a]
1976	5,976	[a]	1,047	15,089	10,400	[a]
1977	5,976	[a]	1,047	15,192	10,400	[a]
1978	5,976	[a]	1,047	13,934	10,400	[a]
1979	5,976	[a]	1,047	14,342	10,400	[a]
1980-1981	5,976	[a]	1,047	12,131	10,400	[a]
United Kingdom						
1973-1975	5,879	4,348	1,065	22,200	10,400	13,076
1976-1981	5,879	4,348	1,065	22,200	10,400	12,925
Yugoslavia						
1973	5,831	4,348	1,112	10,761	10,400	[a]
1974	5,831	4,348	1,112	10,763	10,400	[a]
1975	5,831	4,348	1,112	10,747	10,400	[a]
1976	5,831	4,348	1,112	10,734	10,400	[a]
1977	5,831	4,348	1,112	10,692	10,400	[a]
1978	5,831	4,348	1,112	10,674	10,400	[a]
1979	5,831	4,348	1,112	10,674	10,400	[a]
1980	5,831	4,348	1,112	10,610	10,400	[a]
1981	5,831	4,348	1,112	10,610	10,400	11,373
Eastern Europe and U.S.S.R.						
Albania						
1973-1981	6,180	[a]	1,047	12,600	10,400	[a]
Bulgaria						
1973	5,879	[a]	1,038	12,765	10,400	11,006
1974	5,879	[a]	1,038	12,759	10,400	11,006
1975	5,879	[a]	1,038	12,749	10,400	11,006
1976	5,879	[a]	1,038	12,740	10,400	11,006
1977	5,879	[a]	1,038	12,727	10,400	11,006
1978	5,879	[a]	1,038	12,736	10,400	11,006
1979	5,879	[a]	1,038	12,723	10,400	11,006
1980-1981	5,879	[a]	1,038	12,712	10,400	11,006
Czechoslovakia						
1973	6,204	4,620	1,047	13,870	10,400	13,648
1974	6,204	4,620	1,047	13,841	10,400	13,648
1975	6,204	4,620	1,047	13,750	10,400	13,648
1976	6,204	4,620	1,047	13,716	10,400	13,648
1977	6,204	4,620	1,047	13,617	10,400	13,648

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE (Continued)

Region Country Year	Crude Oil	Natural Gas Liquids	Natural Gas (Dry)	Coal	Electric Power (Btu per kilowatt-hour)	
	(thousand Btu per barrel)		(Btu per cubic foot)	(thousand Btu per short ton)	Hydro	Nuclear
Eastern Europe and U.S.S.R.—Czechoslovakia (continued)						
1978	6,204	4,620	1,047	13,597	10,400	12,761
1979	6,204	4,620	1,047	13,593	10,400	12,761
1980-1981	6,204	4,620	1,047	13,590	10,400	12,761
Germany, East						
1973	5,900	[a]	385	7,614	10,400	11,006
1974	5,900	[a]	385	7,602	10,400	11,006
1975	5,900	[a]	385	7,549	10,400	11,006
1976	5,900	[a]	385	7,592	10,400	11,006
1977	5,900	[a]	385	7,550	10,400	11,006
1978	5,900	[a]	385	7,579	10,400	11,006
1979	5,900	[a]	385	7,642	10,400	11,006
1980-1981	5,900	[a]	385	7,640	10,400	11,278
Hungary						
1973	6,249	4,183	1,114	11,754	10,400	[a]
1974	6,249	4,251	1,114	11,974	10,400	[a]
1975	6,249	4,243	1,114	11,665	10,400	[a]
1976	6,249	4,402	1,114	11,853	10,400	[a]
1977	6,249	4,263	1,114	11,761	10,400	[a]
1978	6,249	4,356	1,114	11,662	10,400	[a]
1979	6,249	4,378	1,114	10,460	10,400	[a]
1980-1981	6,249	4,387	1,114	10,468	10,400	[a]
Poland						
1973	5,831	4,173	1,023	21,678	10,400	[a]
1974	5,831	4,564	1,023	21,710	10,400	[a]
1975	5,831	4,508	1,023	21,876	10,400	[a]
1976	5,831	4,482	1,023	22,029	10,400	[a]
1977	5,831	4,371	1,023	22,031	10,400	[a]
1978	5,831	4,447	1,023	22,104	10,400	[a]
1979	5,831	4,447	1,023	22,391	10,400	[a]
1980	5,831	4,447	1,023	22,698	10,400	[a]
1981	5,831	4,447	1,023	22,071	10,400	[a]
Romania						
1973	5,780	4,620	1,123	13,872	10,400	[a]
1974	5,780	4,620	1,123	12,817	10,400	[a]
1975	5,780	4,620	1,123	12,725	10,400	[a]
1976	5,780	4,620	1,123	12,989	10,400	[a]
1977	5,780	4,620	1,123	12,875	10,400	[a]
1978	5,780	4,620	1,123	12,712	10,400	[a]
1979	5,780	4,620	1,123	12,554	10,400	[a]
1980-1981	5,780	4,620	1,123	12,298	10,400	[a]
U.S.S.R.						
1973	5,438	4,348	940	17,689	10,400	11,078
1974	5,434	4,348	940	17,671	10,400	11,078
1975	5,434	4,348	932	16,946	10,400	11,078
1976	5,432	4,348	932	16,958	10,400	11,078
1977	5,432	4,348	932	16,953	10,400	11,078
1978	5,432	4,348	932	16,953	10,400	11,078
1979	5,432	4,348	932	16,961	10,400	11,078
1980-1981	5,432	4,348	932	17,033	10,400	11,373
Middle East						
Bahrain						
1973-1981	5,869	4,348	1,047	[a]	[a]	[a]
Iran						
1973-1981	5,888	4,348	1,056	25,190	10,400	[a]
Iraq						
1973-1977	5,838	4,348	1,047	[a]	[a]	[a]
1978-1981	5,737	4,348	1,047	[a]	[a]	[a]
Israel						
1973-1981	5,927	4,348	1,039	[a]	[a]	[a]
Kuwait						
1973	5,945	4,348	1,047	[a]	[a]	[a]
1974	5,903	4,348	1,047	[a]	[a]	[a]
1975	5,909	4,348	1,047	[a]	[a]	[a]
1976	5,911	4,348	1,047	[a]	[a]	[a]
1977-1978	5,907	4,348	1,047	[a]	[a]	[a]
1979	5,921	4,348	1,047	[a]	[a]	[a]
1980-1981	5,921	4,348	1,047	[a]	[a]	[a]

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE (Continued)

Region Country Year	Crude Oil	Natural Gas Liquids	Natural Gas (Dry)	Coal	Electric Power	
	(thousand Btu per barrel)		(Btu per cubic foot)	(thousand Btu per short ton)	(Btu per kilowatt-hour)	
					Hydro	Nuclear
Middle East (continued)						
Lebanon						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Oman						
1973-1981	5,879	[a]	[a]	[a]	[a]	[a]
Qatar						
1973-1974	5,737	4,348	1,047	[a]	[a]	[a]
1975	5,788	4,348	1,047	[a]	[a]	[a]
1976	5,737	4,348	1,047	[a]	[a]	[a]
1977	5,739	4,348	1,047	[a]	[a]	[a]
1978-1981	5,690	4,348	1,047	[a]	[a]	[a]
Saudi Arabia						
1973	5,887	4,348	1,047	[a]	[a]	[a]
1974	5,893	4,348	1,047	[a]	[a]	[a]
1975	5,894	4,348	1,047	[a]	[a]	[a]
1976	5,844	4,348	1,047	[a]	[a]	[a]
1977	5,892	4,348	1,047	[a]	[a]	[a]
1978	5,845	4,348	1,047	[a]	[a]	[a]
1979	5,844	4,348	1,047	[a]	[a]	[a]
1980-1981	5,844	4,348	1,047	[a]	[a]	[a]
Syria						
1973-1981	6,098	[a]	1,047	[a]	10,400	[a]
United Arab Emirates						
1973	5,788	4,348	1,047	[a]	[a]	[a]
1974-1975	5,737	4,348	1,047	[a]	[a]	[a]
1976	5,838	4,348	1,047	[a]	[a]	[a]
1977-1981	5,788	4,348	1,047	[a]	[a]	[a]
Africa						
Algeria						
1973-1974	5,585	4,348	1,061	25,200	10,400	[a]
1975-1976	5,638	4,348	1,061	25,200	10,400	[a]
1977-1981	5,585	4,348	1,061	[a]	10,400	[a]
Angola						
1973-1981	5,835	[a]	[a]	[a]	10,400	[a]
Botswana						
1973	[a]	[a]	[a]	[a]	[a]	[a]
1974-1981	[a]	[a]	[a]	25,190	[a]	[a]
Cameroon						
1973-1981	5,948	[a]	[a]	[a]	10,400	[a]
Congo						
1973-1981	5,780	[a]	1,047	[a]	10,400	[a]
Egypt						
1973-1981	5,922	4,348	1,047	[a]	10,400	[a]
Ethiopia						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Gabon						
1973-1974	5,937	[a]	1,047	[a]	10,400	[a]
1975	5,985	[a]	1,047	[a]	10,400	[a]
1976-1977	5,937	[a]	1,047	[a]	10,400	[a]
1978-1979	5,888	[a]	1,047	[a]	10,400	[a]
1980-1981	5,888	[a]	1,022	[a]	10,400	[a]
Ghana						
1973-1981	5,900	[a]	[a]	[a]	[a]	[a]
Guinea						
1973-1981	[a]	[a]	[a]	[a]	[a]	[a]
Ivory Coast						
1973-1981	5,900	[a]	[a]	[a]	10,400	[a]
Kenya						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Liberia						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Libya						
1973-1977	5,737	4,348	1,047	[a]	[a]	[a]
1978-1981	5,690	4,348	1,047	[a]	[a]	[a]
Madagascar						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE (Continued)

Region Country Year	Crude Oil (thousand Btu per barrel)	Natural Gas Liquids (thousand Btu per barrel)	Natural Gas (Dry) (Btu per cubic foot)	Coal (thousand Btu per short ton)	Electric Power (Btu per kilowatt-hour) Hydro	Electric Power (Btu per kilowatt-hour) Nuclear
Africa (continued)						
Malawi						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Mali						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Mauritius						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Morocco						
1973-1981	5,729	[a]	1,047	25,190	10,400	[a]
Mozambique						
1973-1981	[a]	[a]	[a]	25,190	10,400	[a]
Nigeria						
1973-1976	5,888	[a]	1,047	25,190	10,400	[a]
1977	5,838	[a]	1,047	25,190	10,400	[a]
1978	5,788	[a]	1,047	25,190	10,400	[a]
1979-1981	5,788	[a]	1,047	25,190	10,400	[a]
South Africa						
1973-1978	[a]	[a]	[a]	21,400	[a]	[a]
1979	[a]	[a]	[a]	22,000	[a]	[a]
1980-1981	[a]	[a]	[a]	22,535	[a]	[a]
Sudan						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Swaziland						
1973-1981	[a]	[a]	[a]	25,190	[a]	[a]
Tanzania						
1973-1976	[a]	[a]	[a]	25,190	10,400	[a]
1977-1981	[a]	[a]	[a]	[a]	10,400	[a]
Tunisia						
1973-1981	5,677	[a]	1,235	[a]	10,400	[a]
Uganda						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Zaire						
1973-1981	5,879	[a]	[a]	25,190	10,400	[a]
Zambia						
1973-1981	[a]	[a]	[a]	21,235	10,400	[a]
Zimbabwe						
1973-1981	[a]	[a]	[a]	25,190	10,400	[a]
Far East and Oceania						
Afghanistan						
1973-1981	[a]	[a]	1,047	25,190	10,400	[a]
Australia						
1973	5,810	4,348	1,040	22,500	10,400	[a]
1974	5,810	4,348	1,041	22,350	10,400	[a]
1975	5,810	4,348	1,041	22,450	10,400	[a]
1976	5,810	4,348	1,041	22,500	10,400	[a]
1977	5,810	4,348	1,042	22,700	10,400	[a]
1978	5,810	4,348	1,042	22,300	10,400	[a]
1979	5,810	4,348	1,042	23,050	10,400	[a]
1980	5,810	4,348	1,042	23,060	10,400	[a]
1981	5,810	4,348	1,042	23,100	10,400	[a]
Bangladesh						
1973-1981	[a]	[a]	974	[a]	10,400	[a]
Brunei						
1973-1981	5,900	4,348	1,114	[a]	[a]	[a]
Burma						
1973-1981	6,023	[a]	1,047	25,190	10,400	[a]
China						
1973-1981	5,879	[a]	1,047	21,587	10,400	[a]
India						
1973	5,729	[a]	1,034	17,591	10,400	11,386
1974	5,729	[a]	1,034	17,648	10,400	11,386
1975	5,729	[a]	1,034	17,710	10,400	11,386
1976	5,729	[a]	1,034	17,627	10,400	11,386
1977	5,729	[a]	1,034	17,649	10,400	11,386
1978	5,729	[a]	1,034	17,654	10,400	11,386
1979	5,729	[a]	1,034	17,692	10,400	11,386
1980	5,729	[a]	1,034	17,598	10,400	11,386
1981	5,729	[a]	1,034	17,598	10,400	11,392

GROSS THERMAL CONVERSIONS BY ENERGY SOURCE (Continued)

Region Country Year	Crude Oil	Natural Gas Liquids	Natural Gas (Dry)	Coal	Electric Power (Btu per kilowatt-hour)	
	(thousand Btu per barrel)		(Btu per cubic foot)	(thousand Btu per short ton)	Hydro	Nuclear
Far East and Oceania (continued)						
Indonesia						
1973-1977	5,838	4,348	1,047	25,190	10,400	[a]
1978-1981	5,737	4,348	1,047	25,190	10,400	[a]
Japan						
1973	5,900	4,348	1,078	22,642	10,400	11,106
1974	5,900	4,348	1,078	22,643	10,400	10,892
1975	5,900	4,348	1,078	22,650	10,400	10,801
1976	5,900	4,348	1,078	22,655	10,400	10,774
1977	5,900	4,348	1,078	22,667	10,400	10,722
1978	5,900	4,348	1,078	22,667	10,400	10,812
1979	5,900	4,348	1,078	22,663	10,400	10,767
1980-1981	5,900	4,348	1,078	22,675	10,400	10,743
Korea, North						
1973-1979	[a]	[a]	[a]	25,190	10,400	[a]
1980-1981	[a]	[a]	1,078	25,160	10,400	[a]
Korea, South						
1973-1976	[a]	[a]	[a]	19,065	10,400	[a]
1977-1981	[a]	[a]	[a]	19,065	10,400	9,919
Laos						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Malaysia						
1973-1981	5,677	4,348	1,034	[a]	10,400	[a]
Mongolia						
1973	[a]	[a]	[a]	9,156	10,400	[a]
1974	[a]	[a]	[a]	9,250	10,400	[a]
1975	[a]	[a]	[a]	9,374	10,400	[a]
1976	[a]	[a]	[a]	9,500	10,400	[a]
1977	[a]	[a]	[a]	9,538	10,400	[a]
1978	[a]	[a]	[a]	9,558	10,400	[a]
1979	[a]	[a]	[a]	9,773	10,400	[a]
1980-1981	[a]	[a]	[a]	9,288	10,400	[a]
New Caledonia						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
New Zealand						
1973	5,748	4,348	1,141	20,490	10,400	[a]
1974	5,748	4,348	1,141	20,551	10,400	[a]
1975	5,748	4,348	1,141	20,510	10,400	[a]
1976	5,748	4,348	1,141	20,411	10,400	[a]
1977	5,748	4,348	1,141	20,408	10,400	[a]
1978	5,748	4,348	1,141	20,341	10,400	[a]
1979	5,748	4,348	1,141	20,067	10,400	[a]
1980-1981	5,748	4,348	1,141	19,075	10,400	[a]
Pakistan						
1973-1981	5,879	4,348	974	17,640	10,400	11,806
Papua New Guinea						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Philippines						
1973-1981	5,900	[a]	[a]	17,003	10,400	[a]
Sri Lanka						
1973-1981	[a]	[a]	[a]	[a]	10,400	[a]
Taiwan						
1973-1977	6,317	4,348	1,047	25,190	[a]	[a]
1977-1980	6,317	4,348	1,047	25,190	[a]	10,035
1981	6,317	4,348	1,047	25,190	[a]	10,419
Thailand						
1973-1981	[a]	[a]	[a]	8,315	10,400	[a]
Vietnam						
1973-1981	[a]	[a]	[a]	25,190	10,400	[a]

[a]This energy component not produced.

Note: The hydropower conversion factors are the prevailing heat rate factors at fossil fuel steam electric powerplants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydropower production during periods of drought. The factor of 10,400, used for all producing countries except the United States, is an average based on the U.S. factors.

Note: The nuclear electric power conversion factor is the thermal equivalent of fossil fuels adjusted for average efficiency factors for individual nuclear electric powerplants.

Sources: Refer to Appendix A.

NOTES

* U.S. GOVERNMENT PRINTING OFFICE: 1982 381-068/2149

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